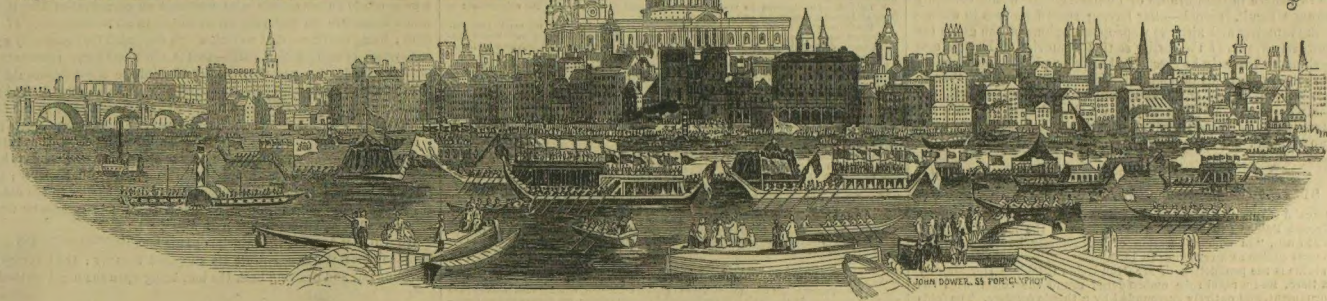


THE ILLUSTRATED LONDON NEWS



No. 514.—VOL. XIX.]

SATURDAY, SEPTEMBER 6, 1851.

{ TWO NUMBERS, 1s.
WITH WHOLE-SHEET SUPPLEMENT, GRATIS.

ANOTHER "EL DORADO."

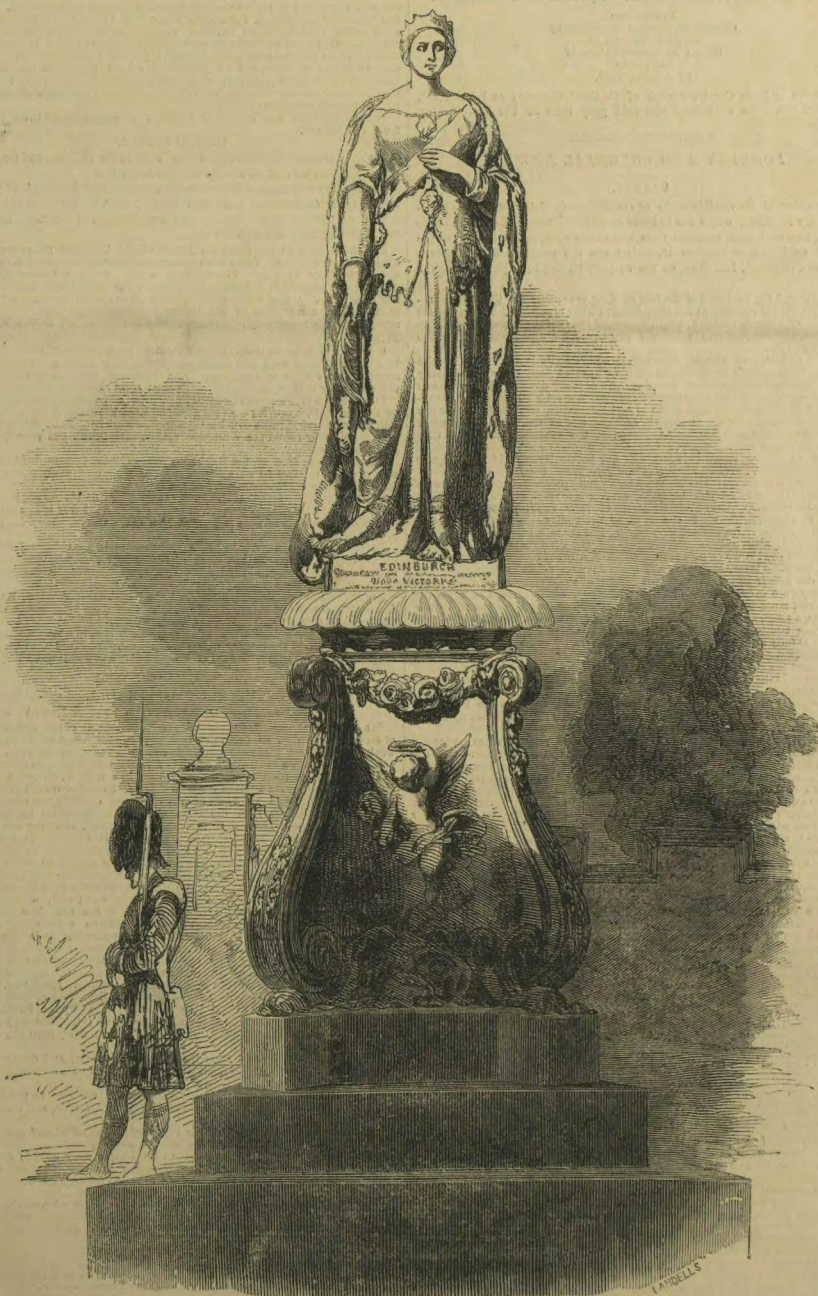
THE world is startled by a new announcement. California, if some recent intelligence which appears in the daily papers, do not turn out to be a hoax, is no longer the only "El Dorado." Brother Jonathan has of late, to use a popular phrase, "been taking the shine out of us." He has been going ahead in every direction. The discovery of the gold of California was the first great achievement by which of late years he astonished the Old World and the New; and to this feat he has lately added Mr. Hobbs and his picklocks, and Commodore Stevens and his yacht. As regards locks, the English makers seem to be fairly beaten by the acute, patient, and skilful Yankee; and, "unkindest cut of all," on the superiority of our naval architecture, the late doings on the shores of the Isle of Wight show that we have much to learn from our young and vigorous friends of America. But all in good time. We have made a beginning already. If the Australians have not been playing a scurvy trick upon us, we have matched Brother Jonathan's auriferous region by discovering gold in Australia, as plentiful as it is beyond the Rocky Mountains. Bramah and Chubb—or there is none of the old stamina left in England—will speedily set all future Hobbses at defiance, by the invention of new locks; and as for the yachts, so far from being aggrieved by the easy victories obtained over our best boats by the *America*, the public already looks upon the gallant Commodore Stevens as a benefactor, and considers that an immense improvement in the construction of our vessels will be the almost immediate result.

But the golden question is at present the more engrossing one, and has thrown Hobbs and Stevens and their achievements in the shade. Australia, a land of which the mineral is only surpassed by the pastoral wealth, and whose copper mines, the richest in the world, have prepared the public to believe in the existence of many yet undiscovered sources of mineral treasure, is said to suffer as great a paroxysm of the gold fever as ever afflicted America; and if the accounts which have been published in the *Sydney Herald* of the 20th of May last, and which found their way to London during the present week, should be wholly or even in part confirmed, the contagion will spread to England, and the emigration to Australia will show a large increase. It is stated that the country, from the mountain ranges beyond Bathurst to an indefinite, or at all events an undefined, extent inwards, "is one immense gold-field." The facts, which are affirmed on the authority of a local journal, represent that a Mr. Hargrave, to whom the discovery appears to be mainly due, accompanied Mr. Stutchbury, the Government geologist, to the "diggings," and "with his own hands washed a pan of earth, in his presence, from which twenty-one grains of fine gold were produced; that he afterwards "washed several baskets of earth, and produced gold therefrom." Nor is the gold only to be found in grains. A young man, the son of a brewer, fanned the previously existing excitement in Sydney into a flame, by arriving from the diggings with a lump of pure metal, weighing eleven ounces, which he sold for £30. An old man was still more fortunate, and arrived in Sydney with several lumps of the pure metal, weighing in all from two to three pounds, and worth from £100 to £160. Mr. Kennedy, the manager of the Bathurst branch of the Union Bank of Australia, visited the diggings with two gentlemen, and each of the three was rewarded by the discovery of a lump of metal, the weight and value not stated; and a few handfuls of loose earth brought from the bed of a creek by Mr. Kennedy, having been sifted and analysed, produced numerous grains of gold, forming, altogether, a quantity as large as a pea. The consequence has been, as we are told, that Bathurst and Sydney, and all the country round, have gone as mad for gold as ever the Yankees did, and that high and low, rich and poor, master and servant, magistrates and policemen, landmen and seamen, men, women, and children, have all set out for the diggings. "People of all trades, callings, and pursuits," says the *Bathurst Free Press* of the 17th of May, "have been transformed into miners; and many a hand which has been trained to kid gloves, or accustomed to wield nothing heavier than the grey goose quill, has become nervous to clutch the pick and crowbar, and rock the cradle at the mines." The blacksmiths of Bathurst speedily got rid of their stock of implements, reserving, of course, sufficient to try their own fortunes with a more tempting metal than iron. "Such is the intensity of the excitement," says our Bathurst contemporary, "that people think of nothing but gold, and the roads are literally alive with newly made miners from every quarter; some armed with picks, some with shovels, and not a few bearing wash-hand basins, tin-pots, and cullenders." The first great result of the gold fever is said to have been a rapid rise in the price of provisions of every

kind;—flour from 28s. to 45s. per cwt., and other articles of prime necessity in a similar proportion.

It is possible that there is some exaggeration in the hasty and imperfect accounts which have reached England, and it is also possible that the whole story is a fabrication; but it is, at the same time, not improbable that these accounts may be strictly true, and that Australia may yet rival California in the production of gold. Further information will be anxiously expected; and, until it arrives, it will be unwise to indulge in speculations as to the

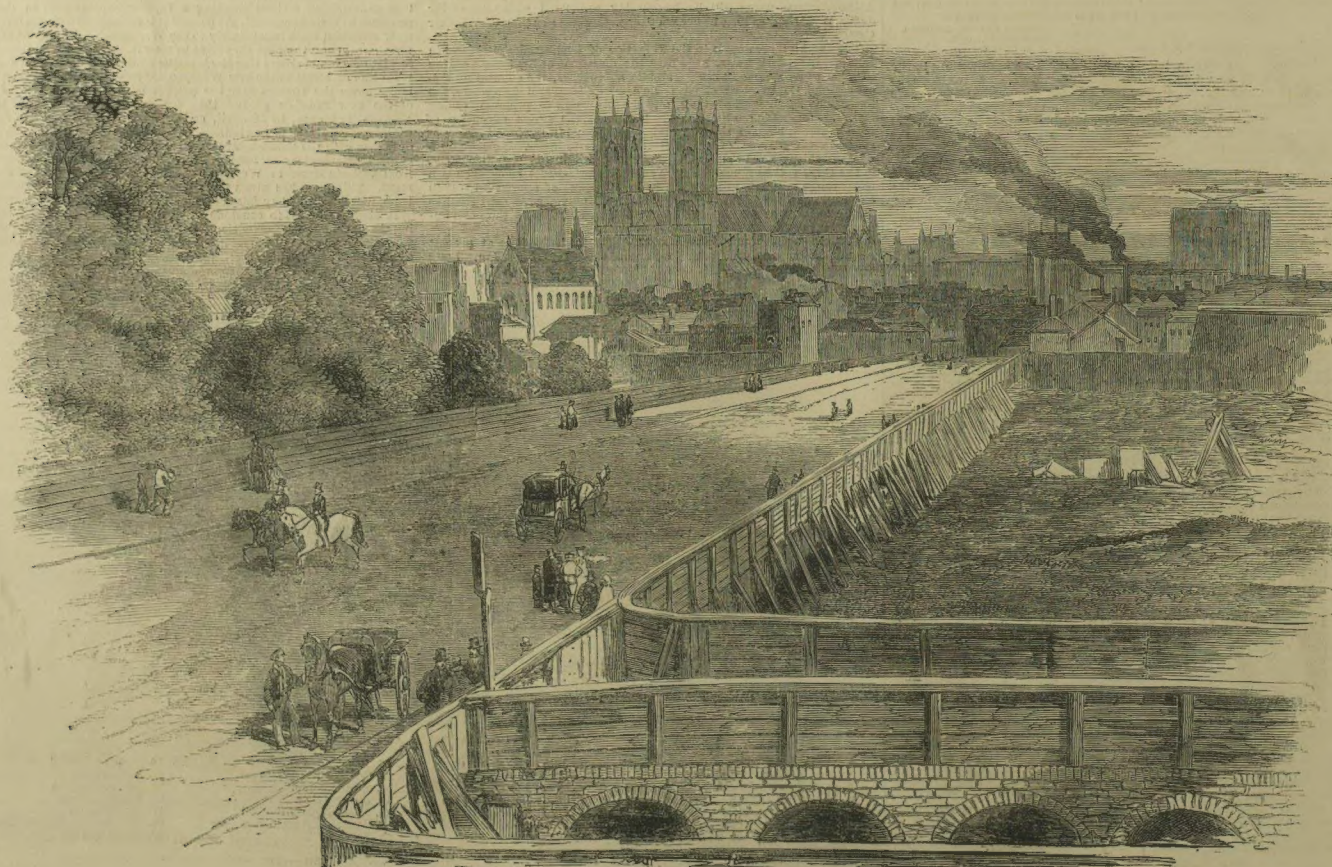
probable consequences of the discovery upon the fortunes of the colony, or upon the commerce of the world. Our old Europe seems to be getting stale. The divine command to increase and multiply, and replenish the earth, has hitherto been but imperfectly obeyed. But what the natural emigration of races in search of homes and subsistence has failed to effect, in peopling the remotest ends of the earth, seems about to be expedited by the more captivating and exciting lust of sudden wealth. The shores of the Pacific were for the first time peopled by the old races of the world, in consequence



COLOSSAL STATUE OF HER MAJESTY, IN FRONT OF HOLYROOD HOUSE, EDINBURGH.—(SEE NEXT PAGE.)



VICTORIA-STREET WESTMINSTER.—EAST END.—(SEE PRECEDING PAGE).



VICTORIA-STREET, FROM THE WEST.

WARWICK RACE PLATE.

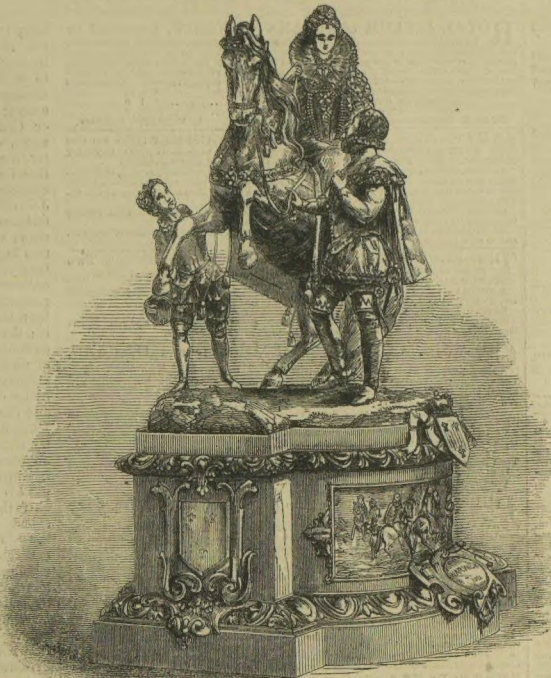
This picturesque group in silver, designed and modelled by Jeannest, has been ably manufactured by Messrs. Elkington, Mason, and Co., of Birmingham; and Regent-street and Moorgate-street, London. The subject was very appropriately selected by the committee of the Warwick Town Plate, at the Races during the past week: it represents Queen Elizabeth entering Kenilworth Castle, A.D. 1575, to partake of the princely hospitalities of the Earl of Leicester, who is receiving his Sovereign on a page on the opposite side of the horse, balancing, as it were, the composition of the group. It stands upon a pedestal, upon two faces of which are the arms of Warwick, the county town; the front is semicircular, and bears a bas-relief of Queen Elizabeth and a hawking party; above are repeated the Warwick arms, and upon a shield beneath is inscribed "Warwick, 1851."

This group is altogether one of the most satisfactory race prizes we have seen of late; it was worthily included in Messrs. Elkington and Co.'s manufactures at the Great Exhibition.

REVIVED COSTUME.—We have just seen a toilette, composed of a Pompadour robe, recalling the time of Louis XV.; the pattern, a large bouquet of natural flowers thrown here and there, over a white ground, and having the appearance of being embroidered by the hand. The form of the robe was very simple; the richness of the material rendering all trimming unnecessary. The plain body was cut in front, showing a white satin waistcoat embroidered in white silk; the pagodes sleeves with a single fringe. The mantelet was of embroidered muslin, and trimmed with point d'Alençon; the bonnet of rice straw, trimmed with a bouquet of mixed flowers; the inside ornamented to match.

—*Le Follet* for September.

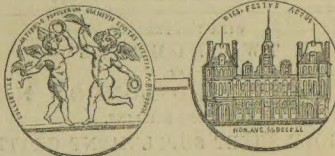
The number of persons who visited the Mansion House to view the Egyptian Hall and the state apartments on Tuesday last, amounted to upwards of 1400. Previous to the issuing the regulation of only granting admission on the two days in the week, the numbers varied from 900 to 1000 daily, which, from the family of the Lord Mayor residing in the Mansion House, necessitates the present limitation to the Tuesday and Friday in each week.



THE WARWICK RACE PLATE.—RECEPTION OF QUEEN ELIZABETH BY THE EARL OF LEICESTER, AT KENILWORTH.

THE GREAT EXHIBITION FETES IN PARIS.

The Medalet here Engraved has just been struck in commemoration of the recent Exhibition *Fêtes* in Paris, and will hereafter, doubtless, be preserved in the cabinets of the curious, as an interesting memorial of



MEDALET IN COMMEMORATION OF THE GREAT EXHIBITION FETES IN PARIS.

the great international festival of 1851. The obverse has two figures bearing palms and wreaths, and the reverse has the elevation of the Hotel de Ville, with the date of the commencement of the festivities, August 9, 1851.

PARIS FASHIONS FOR SEPTEMBER.

We must still seek our patrons of fashion at the watering-places; the Great Exhibition visitors from London certainly enlivened the desert rooms of the Hotel de Ville; and we observed there that white toilettes are much in favour on the other side of the Channel. We remarked that one of the most distinguished guests' toilette was composed of an *organdie* dress with straw, with three cut-out flounces; the top of the flounces was hidden by plaits of straw, and the headdress was also of plaited straw. Two ladies who accompanied her also wore white dresses, trimmed with straw, though the hair was differently dressed. Tunics are also much worn by English ladies. Nearly all dresses had something of the tunic about them. Here we much prefer flounces. We saw at the Hotel de Ville a foreign lady, with a skirt and jacket trimmed with Nevarat velvet, richly embroidered with gold, the jacket fitting tight to the waist in the shape of a waistcoat; her headdress was a gold net, with a long tassel gold and red.

on a bathing day. The morning dress for going to bathe is a *peignoir*, elegantly trimmed *neglige*, made of Scotch woollen plaid, trimmed all down the front with ribbon to match. The *peignoirs* are also made of printed jacquard or cambric muslin, with mantelet to match, with hood. The breakfast, which follows immediately, and which takes place at home, does not change this *toilette* much. Then comes the promenade: either driving or riding, these excursions require strong dresses or habits. The stuffs preferred are nankeen; drill, with small stripes; plaid, or lozenges; *piqué*, white ground; dimity, trimmed with English bands; *brilliant* and *cambric* muslin; and Valencia, with all its varieties. After the promenade, you visit the *etablissement* rooms, where the lightest dresses are quite *de rigueur*; for instance, *barège*, with its varied and capricious patterns, or muslin white dresses, and white canezous, with the coloured skirt. The simple morning bonnet is also laid aside; and in its stead are worn the most graceful, the richest of the season, of open worked straw, leghorns, and rice straws. In the evening silk dresses of a warmer texture are to be seen on the *jetée*. Where the sea breeze is felt, silk mantelets and shawls are worn instead of the lace points and scarfs which have lately come into fashion. Again, for night, the ball or concert dresses are *mousseline*, *grenadine*, or *taffetas*, with three or five flounces; and natural flowers for the *coiffure*.

THE ILLUSTRATIONS.

GENTLEMEN'S DRESS has still the same simplicity, and taste of colours, which gives them a *cachet* of distinction and elegance. The last fashion is a kind of jacket coat, of chestnut zephyr cloth, or green or blue, or Lord Grey's green; waistcoat of Valencia, with patterns, quilted with flowers, Louis XV. shape, or *à la chevillière*: trousers without straps, of mixed satin; grey, green, or light drab, according to the shade of the coat or the wearer's complexion.

BOYS' DRESS.—Dimity casaque, either white or nankeen, edged with a drill lace; and mousquetaire short trousers, with English embroidery, coloured stockings or socks.

GIRLS' DRESS.—Straw bonnet, the front rather depressed, trimmed with ribbons, quite plain; dress of *piqué*, or white muslin, trimmed with a berthe, and



PARIS FASHIONS FOR SEPTEMBER.—GIRL'S DRESS.



PARIS FASHIONS FOR SEPTEMBER.—PROMENADE.

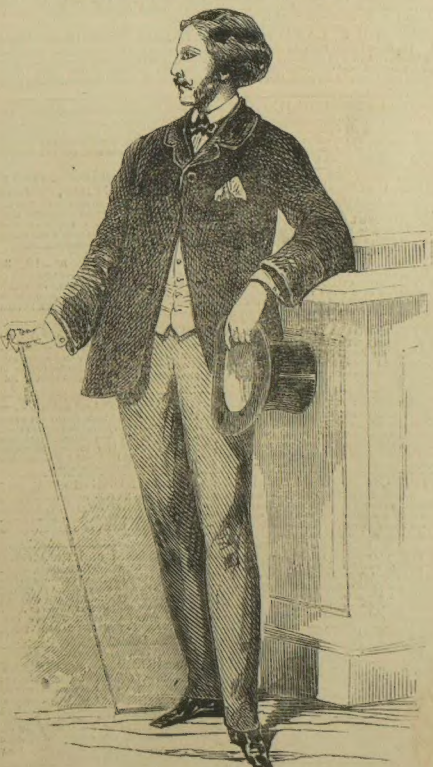


Coloured taffetas, with patterned flounces or scattered running patterns, were often met with, as also white or black lace flounces. Natural and artificial flowers predominated, either as headdress or mixed with the lace. Feathers which are rarely met with at our balls were frequent enough on this occasion, and proved to us that we were, perhaps, wrong to set them aside entirely. They have never been nearer getting into fashion, perhaps on account of their not having been seen for some years.

For walking dresses, let us quit the Hotel de Ville, and travel on to the beach of Dieppe and Tronville, where fashion is all in its glory. Toilettes have great variety; each hour of the day has its own; each occupation creates a change; and there are so many things to do



PARIS FASHIONS FOR SEPTEMBER.—BOY'S DRESS.



PARIS FASHIONS FOR SEPTEMBER.—PROMENADE.

quires to be lifted in and out of his carriage.

COUNTRY NEWS.

well explored on Thursday last.

THE CLOSE OF THE SEASON.—The London season was fast, drawing to a close. No more cards came in for presents; the *folies* of the balls were refreshing their pale cheeks and languid limbs in the transparent shallows of the unhampered sea; the whirl of life ceased in the parks; strange, odd faces and oddities haunted the passages of the operas; the houses in Belgrave and Tyeburn were empty, as though worn out by the heat, with racket and late hours; the clubs thinned, and the smoking-rooms became deserted; but, beyond the continental coast from Antwerp to Havre, and fêlé at Mivart's; shop windows got careless; the papers got stupid; cabmen got lethargic; Vauxhall, the theatre, and the streets, all mysteriously appeared relapsing into indolence. — *The Month, by Albert Smith and John Leech.*

The subsidence of one of the piers of Blackfriars-bridge has suggested to the proprietors of Waterloo-bridge the wisdom of early taking steps to prevent a similar accident. In the view, a vast quantity of stone, broken stone has been discharged into the bed of the river, around which the bridge is so situated, and it is most likely to be injured by the continual washing caused by the river streamers. On Tuesday afternoon, one of the vessels employed in this work, laden with dirt, and having a large quantity of stone on board, was passing the pier, that the mast dislodged a considerable portion of the coping of the balustrade.



DEPARTURE OF THE QUEEN FROM THE RAILWAY STATION, DONCASTER, FOR THE ANGEL HOTEL.

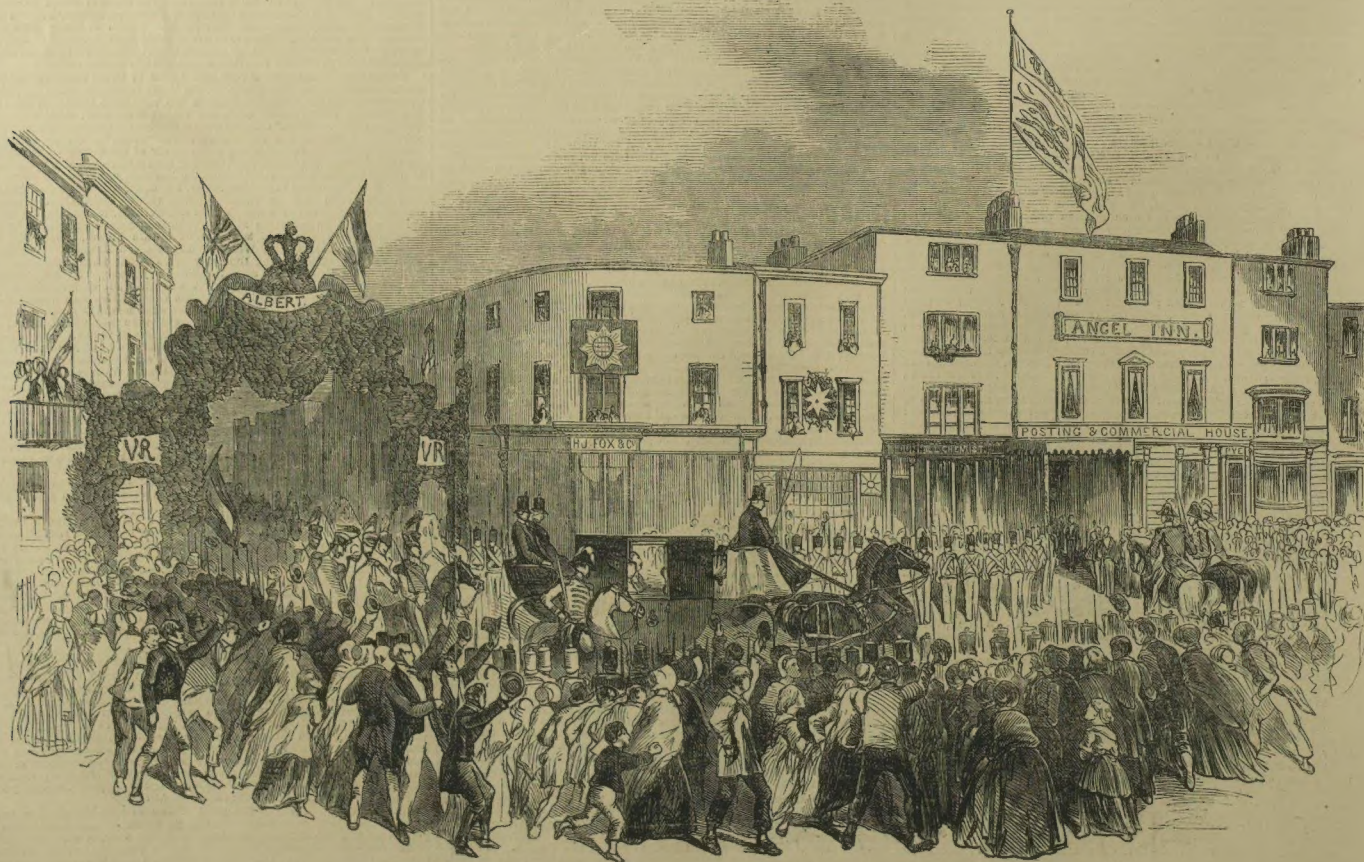
THE QUEEN'S VISIT TO THE NORTH.

In our Journal of last week we detailed the principal incidents of the Royal Journey, to the arrival of her Majesty at Doncaster, on Wednesday.

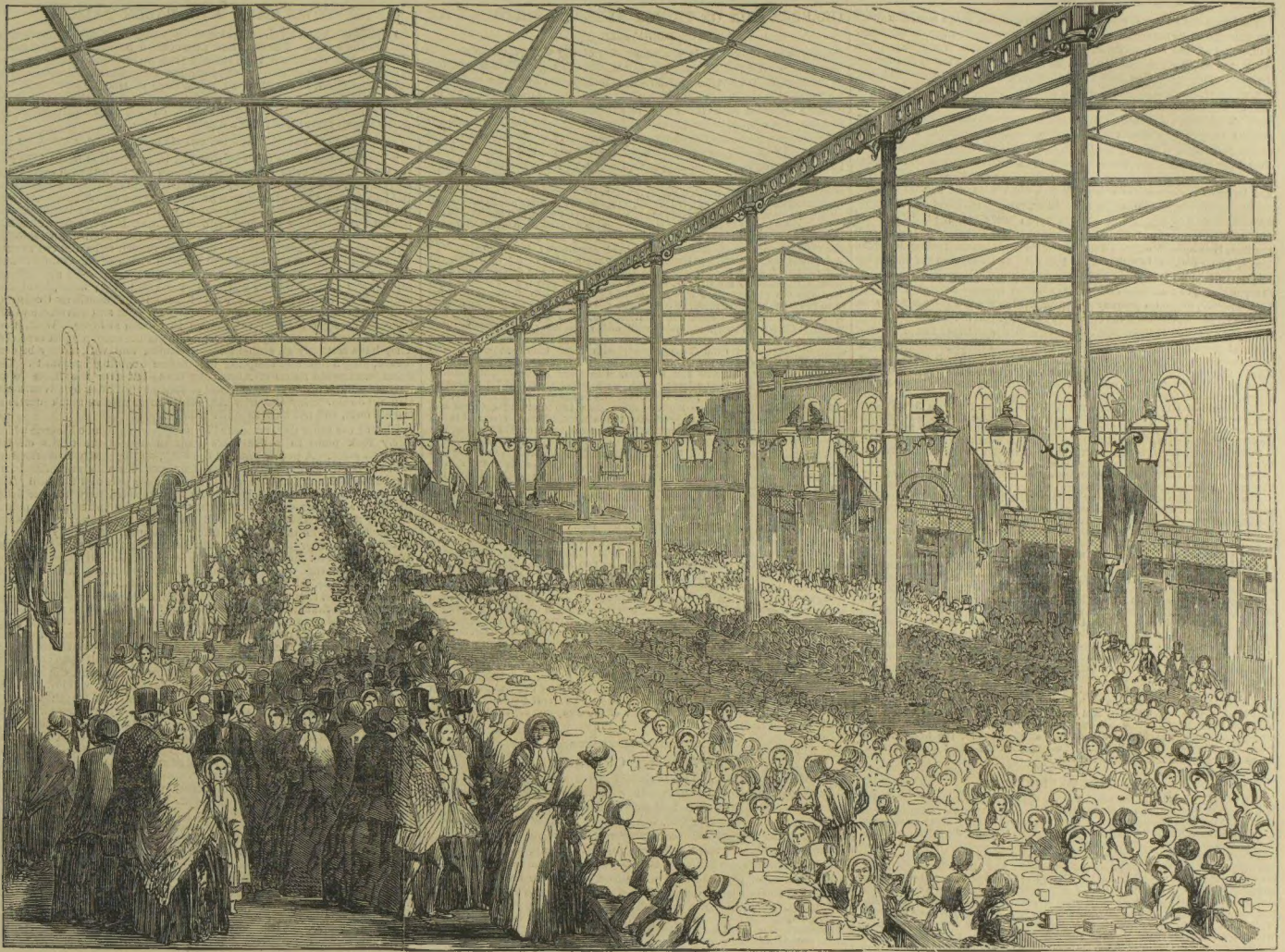
The Queen and Prince Albert, after receiving the address, were conducted through the main entrance to the railway station, which was covered with crim-

son cloth, to the state carriage, immediately at hand. Here the reception was very enthusiastic. On both the platforms ladies waved their handkerchiefs, gentlemen cheered to their utmost, hats in hand, and the children caught up the shout of acclamation and hearty greeting, which was most graciously acknowledged by her Majesty and the Prince. The scholars of the National School, who were placed in front of their building, on an elevated platform, then sang

"God save the Queen." One pleasing feature was the presence of the pupils of the Deaf and Dumb Institution, and the venerable founder of the charity, the Rev. C. W. Fenton, vicar of Mathersey, the honorary secretary; the latter cheering with the greatest enthusiasm, which was recognised by the august visitors. "Welcome Victoria" on the triumphal arch was acknowledged by her Majesty with a graceful smile. On approaching East Leith-gate, with crowds of people



ARRIVAL OF HER MAJESTY AT THE ANGEL HOTEL, DONCASTER.



ENTERTAINMENT GIVEN TO THE SCHOLARS OF ALL SECTS, AT THE MARKET-HOUSE, DONCASTER, ON THE ANNIVERSARY OF THE BIRTHDAY OF PRINCE ALBERT.—(SEE NEXT PAGE.)

extending the whole length of the road, the cheering was also most vociferous. On Hodgson's platform were placed the young gentlemen of Edensfield Academy, while banners floated in the breeze; flags were hung from different points, and bells rang right merrily; in fact, Doncaster manifested such an outburst of loyalty as could not be excelled in the great military progresses of former Kings. Moving onwards, the Royal cortege reached the second triumphal arch. Before

doing so, it passed several fine larch trees, which were temporarily planted to give a better effect to this part of the road.

Looking from the second in the direction of the third triumphal arch opposite the News-Room, the spacious area immediately in front was one dense mass of people, with, however, an opening along the crown of the road which was kept clear by the police. The windows, and balconies, and roofs on each side were

densely crowded with respectable people. As the carriage containing her Majesty and the Prince emerged from beneath the triumphal arch, one loud rushing shout, taken up on all sides, made the walking ring with a welcome as hearty, as enthusiastic, and as sincere as ever struck the ear of Royalty; and it was taken up with equal enthusiasm from balconies, windows, house-tops, and from every elevated position from which a view could be obtained



HER MAJESTY'S ARRIVAL AT THE TEMPORARY TERMINUS, EDINBURGH.

EPITOME OF NEWS—FOREIGN AND DOMESTIC.

On Saturday last the necessary preliminaries and conditions were arranged and finally agreed upon, by which Commodore Stevens transferred the *America* to Captain De Biquiere, of the Indian army, for the sum of £7000 who thus has become sole proprietor and possessor of the ship, and will, it is stated, at once proceed with her on a voyage of pleasure to the Mediterranean.

The Commissioners appointed under the Act of last session to inquire into the practices of elections in the borough of St. Albans, Messrs. Slade, Q. C., Forsyth, and Phipps, have appointed Mr. L. H. Fitzgerald, of the Western Circuit, as their clerk for the conduct of this inquiry, which they have fixed to commence at St. Albans towards the middle of October. The Mayor and Corporation have placed the Guildhall at their disposal, and proffered every assistance in the conduct of the investigation.

From the General Post-office, orders have been issued that the undermen lodges offices be opened as minor minor order offices on the following days: viz. on the 1st September Leyburn, Yorkshire; 4th September: Farnham, Kent; Princess Elizabeth, Buckinghamshire; 7th September: Wye, Kent; Thorpe Arch, Yorkshire, inserted in the list for July last, should be designated as a Boston Spa, Yorkshire.

The Commissioners of Customs have issued directions to the collector and comptrollers of the several ports of the United Kingdom to prepare and transmit to the Comptroller-General a return of expenses incurred at their respective ports under the Steam Navigation Acts, 9 and 10 Vict. cap. 100; and 11 and 12 Vict., cap. 81; and the Passengers Acts, 12 and 13 Vict., cap. 33; and 14 Vict., cap. 1.

At the British Museum, the early closing hours of the autumn season began on Monday. The doors are opened to the public daily (except on Saturday) from ten to five o'clock until the end of September, when the establishment will be closed for a week, and afterwards only open on Monday, Wednesday, and Friday, to four o'clock.

Between six and seven o'clock on Saturday morning, a fire, attended with great destruction of property, broke out in the Deptford and Naphtha Works, situate near the Creek. The flames originated, from some cause not clearly ascertained, in a range of timber buildings, about 30 feet wide by 40 feet long, and, owing to the nature of the contents, not more than five minutes elapsed ere the building presented one immense sheet of flame, and before any attempt could be made to extinguish the flames, they had communicated to another building, in which a valuable assortment of goods was deposited. The manager of the works estimates the stock in trade destroyed as being worth £800 or £1000.

On Monday, the factory of Mr. Lever, Wigan, was destroyed by fire, the cause of which is supposed to be accidental.

An explosion of fire-damp took place in Rose Bridge Colliery, Ince, the property of Messrs. Case and Morris, on Saturday morning last, the result of which was, that 14 of the 15 men employed, named Thomas Lowe, died, and the same evening from the injuries he then received.

On Saturday the registration lists of claims and objections to borough and county votes were published. In the metropolitan boroughs there are not more than 50 claims and objections. The claims and objections for the county are very numerous, but the city of London alone has no more than 214 objections, and only two claims. In the parish lists the claims and objections are so numerous.

The parochial authorities of St. Clement Danes have at length bettered themselves for the suppression of the vile and blasphemous shop-lifts in Holywell-street, and on Saturday conveyed a party to adopt steps to bring about their removal, and the removal of the colony of thieves and infamous characters in Newgate-court.

The municipality of Dijon, in imitation of that of Paris, has resolved to undertake important works, in order to afford employment to the workmen. Amongst other things, it has resolved to effect a complete restoration of the old palace of the States of Burgundy, at an expense of 250,000*fr.* The plans have already been submitted to the Minister of the Interior.

Captain Garrett, of the 46th Regiment, now in Preston garrison, having made a wager with the officers of that corps that he would walk to Liverpool and back (24 miles) in 34 hours, he accordingly started from Liverpool Barracks precisely at eight o'clock on Sunday evening last. The whole of the day was wet and stormy, and it continued to rain heavily until he got as far as Ormskirk at night. However, he maintained his pace, and he returned to the barracks in good spirits on the following day. He was accompanied by a party of 24 men, and having taken 24 hours and three-quarters to perform the journey.

From Naples, accounts of the 21st ult. announce that the small town of Bari, in the Neapolitan territory, had been completely destroyed by an earthquake. All the houses had been either reduced to ruins or swallowed up. 700 dead bodies had been found in the following day. At Salerno a violent shock was felt on the 14th, and several houses were damaged. The province of Basilicata has suffered most from the scourge, as many houses, and even whole villages, have been transformed into heaps of ruins, and many lives lost. The people are panic-stricken, and a return of the calamitous earthquakes of 1783, which were repeated in 1805, is apprehended.

The news from Mexico this week states that the old system of banditti has been revived through the country. The diligence is plundered by armed hands at least twice a week, rendering it exceedingly unsafe to travel with valuables or money. Americans and Englishmen, it is said, are seldom molested, more than the natives, but they respect the robbery of the latter.

Great loss of life and destruction of property occurred at Muscatine, Iowa (United States), on the 11th ult., by a freshet on a creek, which occurred at night. Houses were swept off, and in one a woman and her three children were drowned. The loss to property alone is 10,000 dollars.

Dominick Daly, Esq., formerly Governor and Secretary and Member of Council in Canada, is appointed Lieutenant-Governor of Tobago, in the room of D. Ross, Esq., deceased.

Messrs. R. Duncan Wilmot, John Hamilton Gray, and George Hayward are appointed members of the Executive Council of New Brunswick.

Most of her Majesty's Ministers are at present absent from London. Lord John Russell is with the Queen at Balmoral. Sir George Grey is in an Admiralty yacht. The Chancellor of the Exchequer is at his country seat, as is Lord Grey. The Lord President and Sir Francis Baring are only in town occasionally for a day. Mr. Labouchere has gone to Spain, and almost all the secondary members of the Administration are away. But for the presence of Mr. Palmerston, London might almost be said to be without a Minister.

The merchants of Richmond, Virginia (U. S.), are about getting up a regular line of steamers between that port and Liverpool. In New York a large amount of money has been already subscribed for the construction of an ocean steamer line between New York and Liverpool.

A number of merchants at New York are about to present Mr. E. K. Collins, proprietor of the American line of steamers to Liverpool, with a service of gold plate, value 8000 dollars.

It is said that the manufactory of Colt's American revolving pistols, specimens of which are seen in the Great Exhibition, employs 3000 men and boys at 100,000 dollars' worth of machinery; 40,000 of these arms will be turned out this year.

The *Woodville* (Mississippi) *Whig* says that three children, on their way home from school, were set upon by a pack of bloodhounds in pursuit of run, was torn, killed, and a newly-crowned. The father of the children and two of the pack, and it is said that the owner thereof. He was arrested, tried, and died.

Lord Cranworth and Vice-Chancellor Knight Bruce have been appointed Judges of Appeal, the latter with a seat in the House of Lords. Sir W. Woodhouse and Mr. J. Parker are to become Vice-Chancellors. A vacancy is but recently filled in the Solicitor-General.

The Queen has been pleased to appoint Samuel Morton Peto, Esq., to be Deputy Chairman of the Metropolitan Commission of sewers.

The Western Dispensary, of late Charles-street, Westminster, now occupying temporary premises in Pall-mall, having lately established a building fund, received on the 2nd of August last the munificent bequest of £10,000 from some friends of the Dispensary, under the initials of "A. G."

It is said that Don Miguel is about to marry the Princess de Lowenstein-Rebenberg, a relative of Prince Schwarzenberg, who, although not appearing to be a royal house, is still full of very high nobility in Germany.

The larger portion of the Lambbridge Wells and Hastings Railway, from Lambbridge W. to Robertsbridge, a length of fifteen miles, has a half, was opened to the public on Monday, and the remainder of the line is expected to be opened for public traffic before the end of the present year. The line forms an extension of the Lambbridge Wells branch of the South-Eastern Railway, which commences at junction of the main line near Lambbridge Town, and terminates at the centre of the Lambbridge Wells.

Lord Salmson is to be a Knight of the Thistle, in the room of the late Viscount Melville.

The cloth-dressing mill of Messrs. James Holroyd and Son, cloth-dressers, Carlton Hill, Leeds, was completely destroyed by fire on Friday morning week, together with the machinery it contained. The mill was four stories high, and thirty yards long. The building was insured in the Leeds and Yorkshire office for £1600, but the machinery was not insured. A fireman named John Cope and was seriously hurt on his head and one of his legs by the falling of part of an outer wall of the mill.

The recent alterations in the stamp laws now enable railway companies to receive loans as low as £100, at which rate many are now taking them. Formerly they could not do so in sums less than £400 or £500.

At Michaelmas the first half-year's house duty under the new act will be payable, of 6*d.* in the pound on the annual value of £20 and upwards on shops, warehouses, &c., and of 3*d.* on dwelling houses not used as shops, &c.

A return has been published relative to the number of Bibles and Testaments printed under the authority of the Queen's printers in Scotland from January 1, 1848, to December 31, 1850. In 1848 there were printed 135,365 Bibles and 10,000 Testaments; in 1849, 135,365 Bibles and 10,000 Testaments; in 1850, 135,365 Bibles and 10,000 Testaments. The total number of Bibles and Testaments printed in the three years was 406,035. The value of the Bibles and Testaments printed in the three years was £40,603.5*d.*

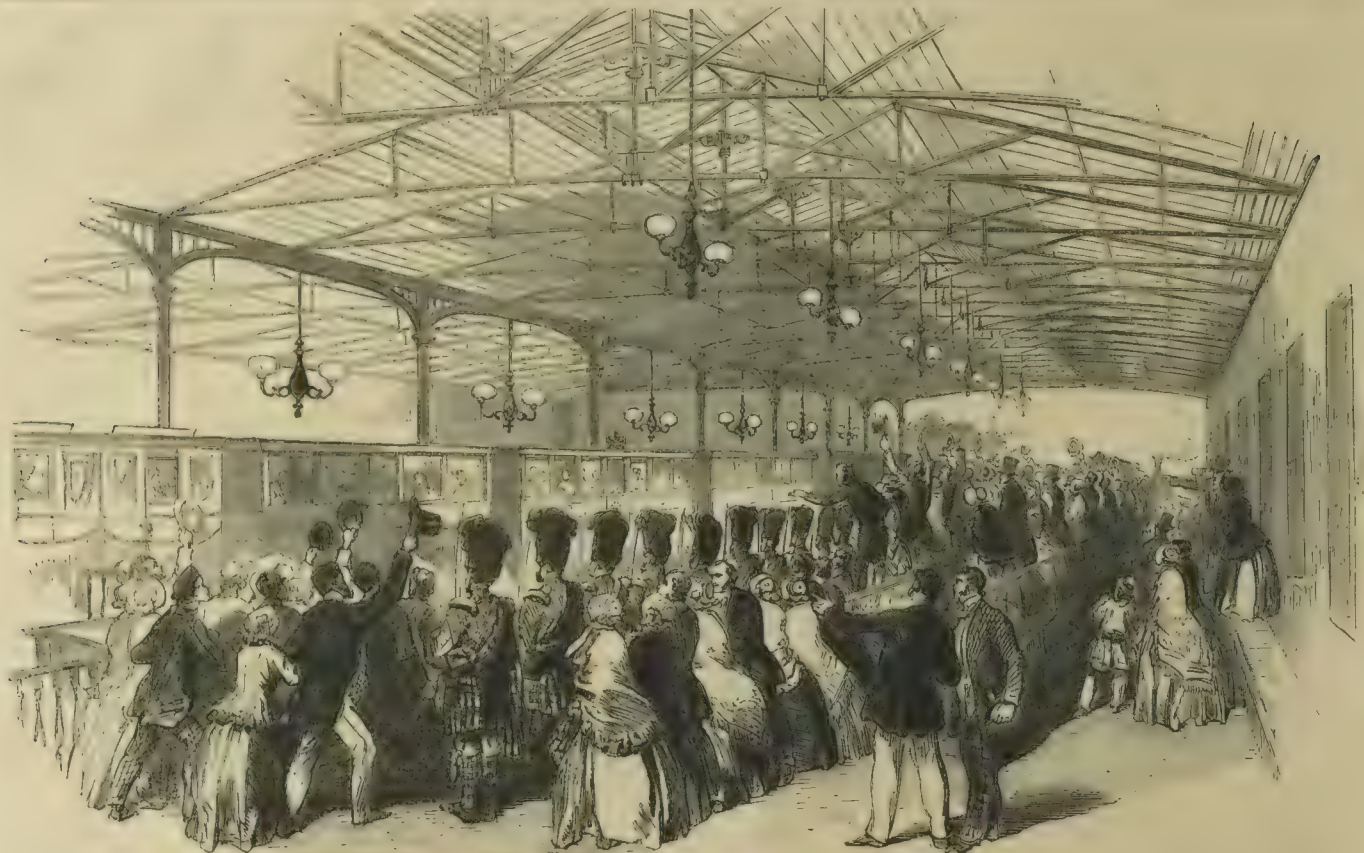
The commerce of Trieste is menaced with a new Belgian Turkish Steam Navigation Company. The vessels of the new company are to serve the ports of Spain, Portugal, the Archipelago, and Trebizond. Eight vessels are ready to commence.

CHESS.

TO CORRESPONDENTS.

PHILO CAISSA—It was surely unnecessary to trouble yourself about so trivial an inaccuracy as the one in question. At move 48 of Petroff and Janisch's game, the Q. Kt. is quite obvious that it is not the Bishop of the King's side, but the Queen's side, that is prepared for pawn to e3. Instead of Q. Kt. 2. The game is the Tournament are being prepared for the Editor's indisposition will probably retard their appearance for some time besides, the arrangement and analysis of such a collection is a tedious and difficult undertaking, and even so, it is not hurriedly.

D. M. C.—In the solution of Problem No. 281, transpos the 2d and 3d moves of white; i. e. give 1. K. to e3. 2. K. to f3. 3. K. to g3. 4. K. to h3. 5. K. to g3. 6. K. to f3. 7. K. to e3. 8. K. to d3. 9. K. to c3. 10. K. to b3. 11. K. to a3. 12. K. to b3. 13. K. to c3. 14. K. to d3. 15. K. to e3. 16. K. to f3. 17. K. to g3. 18. K. to h3. 19. K. to g3. 20. K. to f3. 21. K. to e3. 22. K. to d3. 23. K. to c3. 24. K. to b3. 25. K. to a3. 26. K. to b3. 27. K. to c3. 28. K. to d3. 29. K. to e3. 30. K. to f3. 31. K. to g3. 32. K. to h3. 33. K. to g3. 34. K. to f3. 35. K. to e3. 36. K. to d3. 37. K. to c3. 38. K. to b3. 39. K. to a3. 40. K. to b3. 41. K. to c3. 42. K. to d3. 43. K. to e3. 44. K. to f3. 45. K. to g3. 46. K. to h3. 47. K. to g3. 48. K. to f3. 49. K. to e3. 50. K. to d3. 51. K. to c3. 52. K. to b3. 53. K. to a3. 54. K. to b3. 55. K. to c3. 56. K. to d3. 57. K. to e3. 58. K. to f3. 59. K. to g3. 60. K. to h3. 61. K. to g3. 62. K. to f3. 63. K. to e3. 64. K. to d3. 65. K. to c3. 66. K. to b3. 67. K. to a3. 68. K. to b3. 69. K. to c3. 70. K. to d3. 71. K. to e3. 72. K. to f3. 73. K. to g3. 74. K. to h3. 75. K. to g3. 76. K. to f3. 77. K. to e3. 78. K. to d3. 79. K. to c3. 80. K. to b3. 81. K. to a3. 82. K. to b3. 83. K. to c3. 84. K. to d3. 85. K. to e3. 86. K. to f3. 87. K. to g3. 88. K. to h3. 89. K. to g3. 90. K. to f3. 91. K. to e3. 92. K. to d3. 93. K. to c3. 94. K. to b3. 95. K. to a3. 96. K. to b3. 97. K. to c3. 98. K. to d3. 99. K. to e3. 100. K. to f3. 101. K. to g3. 102. K. to h3. 103. K. to g3. 104. K. to f3. 105. K. to e3. 106. K. to d3. 107. K. to c3. 108. K. to b3. 109. K. to a3. 110. K. to b3. 111. K. to c3. 112. K. to d3. 113. K. to e3. 114. K. to f3. 115. K. to g3. 116. K. to h3. 117. K. to g3. 118. K. to f3. 119. K. to e3. 120. K. to d3. 121. K. to c3. 122. K. to b3. 123. K. to a3. 124. K. to b3. 125. K. to c3. 126. K. to d3. 127. K. to e3. 128. K. to f3. 129. K. to g3. 130. K. to h3. 131. K. to g3. 132. K. to f3. 133. K. to e3. 134. 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HER MAJESTY AT THE PERTH STATION.

THE QUEEN'S VISIT TO THE NORTH.

(Continued from page 282.)

by her Royal Consort and the two elder children. The junior members of the Royal family, the Premier, and the Royal suite then took their seats in the train. The train consisted of eight carriages and three trucks. Mr. Paton, superintendent of locomotives, guided the engine of the Royal train, which was tastefully decorated with flowers and evergreens.

All being prepared, the train left the station at about fifteen minutes past eight, when a cheer burst forth from the spectators.

The Royal train reached Linlithgow at 8 55, where the engine stopped for a few seconds to take in water. At Polmont, the train left the Edinburgh and Glasgow line, and proceeded by the Stirlingshire Midland Railway Junction to Larbert. At the Larbert Junction, the engine was replaced by one belonging to the Scottish Central Railway Company, and several of the directors of that line were here in waiting to accompany the Royal party to Perth. At half-past nine the Royal carriages reached the Perth station, the soldiers of the 79th Cameronian Highlanders lining both sides of the railway; the band played the Queen's Anthem while the Royal party was passing, and a Royal salute was pealed from the guns of Stirling Castle. The magistrates, council, and constabulary were in attendance, as also a great concourse of spectators; but a momentary glimpse only of her Majesty or any of the Royal party could be obtained.

PERTH.

The railway platform was occupied by the portion of the 79th Highlanders at present in Perth, under the command of Captain Harrison; the high constables were also out, and the magistrates and other authorities took their station upon the platform, where there could not be fewer than 1500 or 2000 well-dressed ladies and gentlemen. About twenty minutes after ten the Royal train entered the station amidst the applauding shouts of the multitude. The Royal carriages drew up opposite the platform, and her Majesty politely exchanged salutations with the Lord Provost. During the time the train remained, which did not exceed two minutes, her Majesty stood near the door of the carriage with the Prince on her left hand, along with two of the Royal children, and acknowledged the cheers with which she was greeted.

After several of the directors of the Scottish Midland Railway, who were to accompany the Royal train to the termination of their jurisdiction, had taken their seats, the carriages again drove off.

STONEHAVEN.

The railway station (as on a former occasion) was fitted temporarily as a suite of apartments for the Royal family. A lunch, laid in the most elegant style, was prepared by Mr. Douglas, of the Douglas Hotel, Aberdeen.

In the neighbourhood of the station, and just across the line, was erected a magnificent triumphal arch of evergreens, flowers, &c., and on every eminence

and from many of the houses around flags and banners were displayed. The morning trains brought a considerable number of visitors from Aberdeen and the south, and the inhabitants of Stonehaven turned out in crowds.

At a quarter before one, the carriages drove up, in the same order as that in which they had left Edinburgh. Mr. Pirie, deputy chairman of the directors, Clements Lumsden, Esq., Major Christie, and Mr. Wallace, accompanied the train from Forfar; and Mr. Thompson, of Banchoy, Mr. Davison, of Inchmarlo, Mr. Bervie, and Mr. Gibson, were on the platform here to receive her Majesty, who, on alighting, was received with loud cheers.

Her Majesty remained at the station half an hour, partaking, along with the rest of the Royal family, of luncheon. The suite had refreshment in the second dining-room. At twenty minutes past one o'clock the Royal party left for Banchoy. Her Majesty, Prince Albert, the Prince of Wales, and the Princess Royal occupied the first carriage; the second contained the two other Royal children, and immediately behind came a *char-à-banc* with Lord John Russell, Colonel Gordon, Colonel Phillips, and Sir James Clark. On their departure they were saluted with loud cheers.

The first stage of 15 miles brought the Royal party to Banchoy, by the Dee side, where they changed horses at the Burnet Arms Inn. The course of the river was then followed by Aboyns and Ballater, at both of which places relays of horses were in readiness. At Ballater the river was crossed, the Royal party proceeding thenceforward by the south bank of the Dee to Balmoral, where her Majesty arrived quite safely about half-past seven o'clock.



DEPARTURE OF HER MAJESTY FROM STONEHAVEN.



WALL OF SEVERUS, WALLTOWN CRAGS, NEAR THIRLWALL.

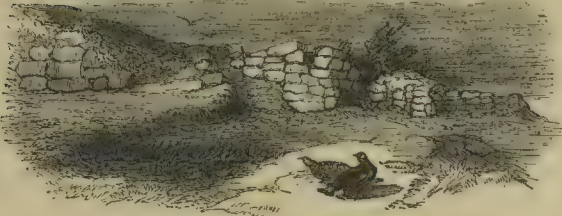
NOOKS AND CORNERS OF OLD ENGLAND.

REMAINS OF THE WALL OF SEVERUS, WALLTOWN CRAGS, CUMBERLAND.

The noble design of his Grace the Duke of Northumberland, comprising an extensive examination of this ancient barrier of Northern Britain, and a liberal invitation to the body of antiquaries to take part in the proposed investigation, has created a revived interest in a subject which, from time to time, has engaged the attention and research of some of our ablest topographers and archaeologists.

land on the English border, the range of Crossfell and Skiddaw appearing in the distance.

The height of the Wall at Walltown Crags was a subject of correspondence between Sir Walter Scott and the Rev. Mr. Hodgson, author of a history of Northumberland. In the course of this, the former, conceiving he had obtained but an



REMAINS OF THE STATION CALLED MAGNA, CAERBORON.

The remains of this colossal monument erected by the energy of our Roman fathers, to whom we owe the foundation of our laws and civic institutions, appeal in a manner somewhat more touching than belongs to the common interest of historical association, when looked upon as a parting memorial bequeathed by the friendly conquerors at a time when the exigencies of the Roman State demanded the recall of those legions whose prowess had sufficed to protect the Britons from the savage tribes of the Scots and Picts who threatened them from the fastnesses of the north.

The largest surviving feature of the famous wall is that portion of it which crowns the serrated edge of Walltown Crags, near Thirlwall Castle. This part is locally called the Nine Nicks of Thirlwall. It presents a scene of peculiarly wild and picturesque ruggedness; and the Wall at the highest part is upwards of eight feet in height, its thickness being [nine feet, presenting to the north as many as twelve courses of facing stones.

The house of Walltown is celebrated as having belonged to the Ridley family, and was the residence of John, the brother of the martyr Bishop Ridley.

A well, near the line of the Wall, which has formerly been enclosed with masonry, is called Arthur's Well; and is said to have been the spring in which Paulinus baptized King Eboric on his conversion to Christianity.

At Caerboron, an eminence retaining its British name, lying off the south side of the Wall and the vallum, which is conspicuous along the line of the Wall at Walltown, are the remains of the station called Magna, supposed to have been one of the forts erected by Agricola, previous to the Wall; and of the vallum, the fragment which remains visible is a part of the northern rampart of the station, which covered an area of four acres and a half, and appears from its space and position to have been a point of considerable importance.

The view from this eminence extends from the base of the crags, over a waste of peat moss, which in earlier times formed part of the debatable

waste of moss land, Skiddaw and the range of Crossfell appearing in the distance.

MISS CATHERINE HAYES.

MISS CATHERINE HAYES left Liverpool, for New York, on Wednesday last, to make a tour in the United States.



MISS CATHERINE HAYES.—FROM A PORTRAIT BY A. SALOME.

indefinite reply to his enquiry, wrote to ask if the Wall was high enough for a man to break his neck from it; to which his correspondent replied, that he certainly considered that it might be so, especially if, in taking the leap, he should include the cliff at its base, which would add some hundreds of feet to the probability of such a result. The view from the heights extends from the bases of the crags over a

day last, to make a tour in the United States. This gifted vocalist whose Portrait is presented by our Artists, was born in Limerick. At an early age her beautiful voice won for her the patronage of the late Hon. and Right Rev. Edmund Knox, Bishop of Limerick. In Dublin, Signor Antonio Sapio was the first singing-master of Miss Hayes, in 1841; and her first appearance in public took place at his annual concert in the great room of the Rotundo. In December of that year she sang, at the concert of the Anacreontic Society, "Qui la voce" from Bellini's "Puritani," and "Come per sereno," from the "Son-nambula." Liszt, the celebrated pianist, heard her at a concert in January, 1843, and was so struck with her singing that he wrote to the Bishop of Limerick's daughter-in-law thus:—"I do not know of any voice more expressive than that of Miss Hayes. I doubt if, amongst the singers of the day, there is one equal in extent and volume to what hers will be." During 1843, Miss Catherine Hayes continued to be one of the leading singers of the Anacreontic Phil-harmonic, and other powerful concerts in Dublin. Lablache and Costa heard her at the close of this year, and expressed high opinions of her



"THE BATEMAN CHILDREN," AT ST. JAMES'S THEATRE.—(SEE NEXT PAGE.)



MEMORIAL BUST OF RICHARD HOOKER, IN THE TEMPLE CHURCH. (SEE NEXT PAGE.)

HER MAJESTY'S.

The success that attended the performances at play-house prices last week has induced the management to give five additional nights this week. The first was on Tuesday, when "Norma," compressed into one act, was presented, with Mdlle. Cravelli, Mdme. Giuliani, Signor Pardini, &c., &c.; followed by "Samora;" with Signor Ferrari; the first-act of "Lucrèce Borgia," with Barbieri Nini, Mdlle. Ida Bertand, Gardoni, and Lorenzo; and the "Frodogo" divertimento, with Rosati. On Wednesday, a portion of "Lucia" was the opera, with Barbieri Nini and Mr. Sims Reeves, followed by selections from *"Lindula"*, by the sisters Cravelli and Signor Ceccoli; ending with a *diversertimento*.

On Thursday, the second and third acts of "Fidele in a Spanish romance," Mdlle. Fiorentini; "La Sultanele," by Rosati and Ml. Silvani; the last scene of "Anna Bolena," for Barbieri Nini; the last scene of "Lucia," by Mdlle. Sun Redford; the "Pas d'Almae," by Rosati; and gleanings from the first act of "Masiello," by Mdlle. and Fiorentini.

Last night we had the "Sonnambla," with Santos; the first act of "Lucia," with Barbieri Nini and Sims Reeves; the "Pas de l'Assommoir," by Roati; selections from Mdlle. Cravelli, and the "Fidèle," by Rosati. On Friday, the first season, Donizetti's "Ficilia del Regimento," selections from operas for Barbieri Nini and Cravelli, and pas by Rosati.

We shall give our summary of the season next week.

ROYAL ITALIAN OPERA.

The subscription season, which commenced Thursday, April 3, ended on Saturday night (Aug. 30) with the ninth representation of the "*Iniqueta*," finely sustained by Gris! Mdme. Castellani, Mdllo. Anzi (who has not been sufficiently heard this season), Tamburini, Tagliafco, Polonini, Soler, Mario, and Hier Formés. The house was crowded, the enthusiasm was great, and the recitation most felicitous.

At the close of the evening the principals, The National Anthem was fervently sung, and loyally received.

The opera of the *repertoire* produced this season have been "Semtiramide," Donna del Lago," "La Gazza Ladra," and "Orfeo," Rossini; "Masniello," of Auber; "Le Diavolo," by Boileau; "Il Diavolo," by Bellini; "Amore," of Donizetti; "Lucrèce Borgia," "La Favorita," and "Elixir d'Amore," of Donizetti; "Der Freyschutz," of Weber; "Norma" and "Puritani," of Bellini, and the "Don Giovanni" of Mozart. Out of five pledged new works in the prospectus, only three have been brought out, namely, Desnoes, or "Fidelio," Mozart's "Il Flauto magico," and Verdi's "Macbeth." There has been also one morning concert this season, that of Mrs. Anderson. There have been 63 representations, 46 subscription, and 20 extra tickets.

Out of the sixty-six nights, twenty-three were devoted to Meyerbeer's three operas, twelve to Mozart, ten to Verdi, six to Donizetti, seven to Bellini, four to Rossini, two to Spontini, two to Beethoven, and two to Gounod. Auber's "Enfant Prodiges," the copyright of which had been purchased by Mr. Gye of Scrive and Auber, was expurgated at Her Majesty's Theatre.

For the first time, since the five years' existence of the Royal Italian Opera, the season has been prosperous, and the public interest beneficial has been decided as the result of the marketing. Mr. Gye will continue to be the sole director for the season of 1852.

ST. JAMES.'—THE BATEMAN CHILDREN.

These remarkable children have this week appeared in *Shalool* and *Patria*; in the fourth act of the "Merchant of Venice," and manifested the same extraordinary aptitude to receive instruction, and to imitate what they saw already done, as when they first came under notice. Their principal benefit has been derived from Mr. Barnum's desire to show what he calls their "versatility," and what Sir Bulwer Lyttton would pronounce to be their "comprehensiveness"; but the faculty of imitation signifies a variety in the development, else it would descend to mere mimicry, such as we witnessed in some of the two precocious marvels in question, trusting that they who have the care of them are duly impressed with a sense of the moral duty of not overworking powers so preeminently developed, and will look carefully to the future welfare of the children, rather than to their present gain, and to the immediate profit to be derived from their too-early exhibition of talent. Prodigious they may be—and are; but they are intellectual agents as well, and a serious responsibility rests on those who have direction of them for the thorough education of the mind entrusted to their charge. It could hardly be compassed, nothing would be more wonderful than the number of wonderful children in the world. Childhood itself, indeed, is the great wonder. "Heaven lies about infancy." What admirable and mysterious powers lie unfolded in the cradle! How few of these powers ever become manifest after childhood!

The Child, as Aristotle said of old,

naturally an actor, and the State Bateman had been produced to an almost unparalleled degree of popularity." Our Portraits present them in the comic characters of "The Young Couple," translated from the vaudeville of M. Scribe. The decided expression of both speaks for itself.

M. BOULTON'S DIORAMAS, HUNGERFORD HALL.

The two dioramas of Frieburg, and St. Mark's Church, at Venice (interior), painted by M. Bouton, for the new "Entrepôt of Industry and Commerce," in Hungerford-market, Strand, were opened on Monday. From the reputation of M. Bouton as a master of this sort of painting, and celebrated for his exact imitation of nature, we expected to expect some extraordinary merit. But the two pictures are, perhaps, the most striking. As we have previously stated, each church is represented under two different aspects—daylight, and twilight, or evening. The second is the more attractive and picture-que, the subject being the presentation of the Doge, Sebastian Ziani, after his election. The church is thus by far the more interesting. It is distinguished by the excellence of the painting due to personal experience of the scene, the chance from spring to winter on one May morning in 1839, while the author was wandering in Switzerland. Snow and hear-frost descend on a beautiful landscape, varied with meadows, rocks and waters, villages and hamlets, and all the various dramatic effects proceed, the accompaniment of organ music suggests the appropriate sentiment.

AMERICAN DRAMATIC JUBILEE.

The Yankees are resolved to go ahead in everything. In these days of dramatic sentimentalism, our countrymen seem anxious to learn that the grandest of New York were, on Tuesday, the 12th of August, engaged the whole day, from 10 A.M. till 11 at night, in witnessing a succession of dramatic performances in the Castle Garden, in honour of a sumptuous banquet given by the Board of Trade, in commemoration of the centenary of the birth of the illustrious American dramatist, Eliehuart A. Marshall, lessee of the Bowditch Theatre. The programme comprised equestrian, historic, and operatic, with its various tropes and compounds of the various theatrical genres. The programme was most judiciously arranged; the equestrian, historic, and operatic, engaged for the important occasions. The requisition to Mr. Marshall is signed by one Henry F. Quackenbush, "Secretary on behalf of the Corresponding Committee," to which Mr. Marshall replied in appropriate terms. He has accepted the engagement, and will appear, accompanied by the third act of "Rob Roy," in which the costume of Madame Ponisi, as Helen McGregor, was much admired. Then a poet

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NEW BOOKS &c.

GEMS OF WOOD ENGRAVING, from the ILLUSTRATED LONDON NEWS, with a History of the Art, and many other woodcuts, by WILLIAM A. CHATTO. London: W. Smith, 10, Old Bailey, Strand. 1s. 6d.

THE NOVEL LIFE AND ITS LESSONS. Founded on Fact. By the Author of "The Wife's Story." W. Smith, 10, Old Bailey, Strand. 1s. 6d.

AN OVERLAND JOURNEY TO THE GREAT EXHIBITION. Showing a Few Extra Articles and Visitors. By RICHARD LLOYD. London: Chapman and Hall, 15, Piccadilly. To be had of every bookseller, and at all railway stations.

THE SAXON IN IRELAND; or, the Rambles of an Englishman in Search of a Settlement in the West of Ireland. To all about to visit Ireland, either on a tour of pleasure, or for the purpose of judging of the capabilities of the country, this work will prove an invaluable guide. JOHN MURRAY, Albemarle-street.

THE SECOND EDITION OF THE PANORAMIC VIEW OF THE COUNTY OF DUBLIN, with a History of the City and its Environs, and a Description of the County, accompanied by an Illustrated Guide, and plans of the Ancient and Modern City. In ultramarine ink, or, in color, with 100 plates. 1s. 6d.

BOHN'S CLASSICAL CATALOGUE, containing all the principal editions of the Greek and Latin Classics, Translations, and Commentaries, with the names of the Authors, and the names of the Publishers. HENRY G. BOWEN, York-street, Covent-garden.

HOME EDUCATION, edited by ISAAC TAYLOR, a new edition. Part 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, 29th, 30th, 31st, 32nd, 33rd, 34th, 35th, 36th, 37th, 38th, 39th, 40th, 41st, 42nd, 43rd, 44th, 45th, 46th, 47th, 48th, 49th, 50th, 51st, 52nd, 53rd, 54th, 55th, 56th, 57th, 58th, 59th, 60th, 61st, 62nd, 63rd, 64th, 65th, 66th, 67th, 68th, 69th, 70th, 71st, 72nd, 73rd, 74th, 75th, 76th, 77th, 78th, 79th, 80th, 81st, 82nd, 83rd, 84th, 85th, 86th, 87th, 88th, 89th, 90th, 91st, 92nd, 93rd, 94th, 95th, 96th, 97th, 98th, 99th, 100th, 101st, 102nd, 103rd, 104th, 105th, 106th, 107th, 108th, 109th, 110th, 111th, 112th, 113th, 114th, 115th, 116th, 117th, 118th, 119th, 120th, 121st, 122nd, 123rd, 124th, 125th, 126th, 127th, 128th, 129th, 130th, 131st, 132nd, 133rd, 134th, 135th, 136th, 137th, 138th, 139th, 140th, 141st, 142nd, 143rd, 144th, 145th, 146th, 147th, 148th, 149th, 150th, 151st, 152nd, 153rd, 154th, 155th, 156th, 157th, 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WITH WHOLE-SHEET SUPPLEMENT, GRATIS.

THE GREAT EXHIBITION.

THE LITERATURE OF THE EXHIBITION.

THE Exhibition is a most interesting show. A pleasanter lounging-place for the rich never was created. To a more gratifying scene the hardworking poor were never invited. To both it has given a common pleasure, and inspired with a common interest. They admire and talk about the same objects, most of which are equally new to both. The well instructed have the advantage of understanding the objects they behold; the ignorant are vividly struck with the splendid novelties, and find some compensation for the want of knowledge in their more lively impressions. The present effects of the World's Fair in exciting an interest in the products of industry, familiarising classes and nations with things before strange or unknown, bringing together exhibitors and visitors from every part of our own empire and from most parts of the world, giving information to all, and establishing friendship and harmony between strangers of every clime and every creed, are much too well known, and have been too often dwelt on, to require any further elucidation. They are only adverted to, undoubted as they are, because they lead from the present to the future, and incite us to inquire into the probable effects of the Exhibition hereafter. It is only the savage who is perfectly satisfied with the present;

civilised man, by prudence and foresight, takes a guarantee for the future. He knows that the wine, which sparkles in the cup, afterwards "bites like a serpent and stings like an adder," and he is very properly not contented unless he have a reasonable assurance, that present enjoyment will not be future trouble and misery. However difficult it may be to explain the reasons why, in many cases, and not in all, present bliss should be future sorrow, the fact is so; and it opens a large field to the fancy of those who are disposed to take the adverse side of any question; and they can always rake together numerous plausible and alarming suspicions, that, the more soft and flowery our present paths, the more certainly do they lead to destruction. To meet such cavillers, and show that the probable future effects of the Exhibition will be beneficial like its present effects, rather than to describe any part of its contents, is the object we have now in view.

We mean to speak of the literature of the Exhibition: not, however, of the various specimens of French and German typography with which it is enriched; not of the 170 versions of the Holy Scriptures, displayed by the British and Foreign Bible Society; not of the almost matchless specimens of the art of printing—using the word in its most enlarged sense—to be found in the Austrian department; not of the types of almost all the written languages of the globe, exhibited—however little noticed, all these are extremely valuable and important: but we propose to pass them by, and speak only

of the literature that has already grown from the Exhibition and is an inseparable part of it. We select that, because it will be more by the influence which the Exhibition now exercises over it, and more by the subsequent influence of literature over the public, than by any other means, that the permanent characteristics of the Exhibition will be established. It will live in print, and by print hereafter will its effects be known. Probably all great events become permanently influential by similar means. Without pretending to compare the Exhibition with the discovery of America, or our great Rebellion—though it marks a very important epoch in the history of mankind—as those stirring events were the parents of the gigantic minds of Bacon, Shakespeare, Milton, and Newton, so will the Exhibition, deeply agitating nations with the spirit of kindness, be the parent of some large mental developments. Impressing first its own peculiar features, whatever they may be, on the literary men of the age, by them they will be transmitted, enlarged, purified, and beautified to future generations, and will help to form the character of our children and our children's children.

One peculiar feature of the Exhibition, peeping out from the spangled and gilded ornaments, announcing itself massively, broadly, and unmistakably in the machinery, and winning us by its gracefulness in the sculpture, is well-defined form, leading to precision of eye, precision of language, and precision of character. Every one has, of



THE ANCIENT BRITON.—BY ADAMS.



THE GREEK HUNTER.—BY GIBSON.

This page is embellished with two works of British sculpture, the "Greek Hunter," by Gibson, in marble, in the Sculpture-room; and

Adams' "Ancient Briton" looking out as a scout, in plaster, in the Transept. The former is an admirable production, and the latter evinces consider-

able spirit and is creditable to the artist. We have, however, already sufficiently spoken of both these works in our notices upon sculpture.

course, noticed the long technological descriptions in the newspapers of the multifarious articles in the Exhibition, and of the art connected with them. These technological descriptions are new features every now and then, as a new invention starts into life, or an inventor calls on the public to test or to admire some great improvement, the newspapers have taken notice of it, or if it has been important, have given an accurate description of it as the talents at their command would supply. But the Exhibition has induced them to enlist in their services eminent technologists of all kinds, and has induced many of them to make it their express business to study industrial processes, to compare and comprehend the distinctive characteristics of their various products, in order to describe them. Its immense and varied contents, comprising more of the results of industry than were ever before collected or noticed in our books, have accordingly been, or are in process of being, minutely described with more or less skill, but in general with great accuracy, in the majority of the journals of the empire. It is the spirit of close and minute observation, and much valuable knowledge. It is for them, in fact, a new education; and, banishing the poetry of fiction and dreams, will inspire them with the poetry of reality. It will have a corresponding effect on the literary character. Habits now formed by its influence will not be readily laid aside, and they will influence the future lives of individuals and of nations. The very manner in which the objects are particularly classified as the refuge from confusion; and precision, therefore, first impressed on literature, and afterwards by literature impressed on society, seems one of the prevailing, and likely to be one of the enduring, moral effects of the Exhibition.

Nor is this fact the less remarkable, nor will it be less influential, from being only an extension, though a sudden and rapid one, of a progress before obvious. For many years it has been particularly in the manufacturing and in the mind connected with them, that the tendency of literature has been towards realities. It has been marked by careful observation and accurate description of the production of industry and the condition of society. The rapid development of that tendency by the Exhibition falls in with the previous and general improvement, and is a permanent part of it. It is not, therefore, an extraordinary occurrence, to be out of the ordinary course, a temporary phasis of course, but a wide-spread love for sentimental novels; or an ebullition of philanthropy in favour of ragged schools; or a fashionable attachment to dresses that sweep the streets; or even like the running to the World's Fair itself: it is a healthy growth, and part of the general intellect—a permanent step forward, the necessary consequence of the past, and indicating the more advanced future to which society is hastening. We cannot live by poetry; and, as the objects are so permanent, and in conjunction with the real and the true; but by these men maintain themselves on the earth, and by these society is improved. When we say that the Exhibition promotes precise knowledge, we mean that it is hastening for all the dominion of the real and the true. The effect is not confined to England, though more conspicuous here than elsewhere. Amongst the Germans, technological education is already provided for; and, as the Exhibition is so permanent, and as we are well acquainted with their history. It has been written for the instruction of the young, and is carefully taught them in most schools. It forms a part of their extensive and excellent scheme of instruction. Amongst them are numerous technologists ready made, and several well-informed men and clever writers have been sent hither, and have supplied the German journals with detailed descriptions of the articles in the Exhibition. The French have done nothing, though not so extensively, as the Germans. Both have adopted, though of course not equally with ourselves—the plan of illustrating their writings; and the art of the engraver has given distinctness, as well as force, to their verbal descriptions. The effects of the Exhibition on literature, therefore, giving increased care in observing minute differences, adding to precision, and spreading a knowledge of realities, will be similar all over Europe—if not so immediately striking in other countries as in England. The phasis of the mind is general, as well as permanent, and whatever may be its consequences, they will not be confined to our own country.

We have referred to newspapers as bringing the characteristics of the change under the notice of all; but other literature shares in the influence. The monthly and quarterly periodicals are becoming more scientifically precise and technologically accurate. They discriminate with increased care between the products of different countries and different arts; discuss with more precision the merits of the various machines and printing presses; describe the different qualities of English and French silks and velvets, of Brussels lace and Swiss embroidery; in short, they too, feel the influence of the Exhibition in making literature more minute and careful, and more attentive to facts. Of the numerous catalogues of the Exhibition requiring an immense amount of minute labour and careful research we say nothing, because the quality of precision is obviously and uniformly displayed in them. Like the official descriptive and illustrated catalogue now in course of publication, have well-executed engravings of many of the articles in the Exhibition. Of our own Journal, and its efforts to present a faithful and enduring record of the Exhibition, it does not become us to speak. All the works connected with the Exhibition necessarily display minute and careful attention, while they deal only with interesting realities. The demand for them is increasing, and the novelty of the subject, and the love of facts, and will not readily go back to vagueness, poetry, and fiction. Thus educated, the public will require a similar spirit in writings not connected with the Exhibition, and the direction it is now giving to a part of our literature will be more or less imparted to the whole. In truth, knowledge has, from the very first, been advancing from the shadowy and the vague to the definite and the precise; from loose individual perceptions, to firm and general truths; the progress will be accelerated by the Exhibition, which merely gives a fresh impetus in the old direction.

The civilisation of Europe, so far as it depends on religion and science, is, to a great extent, common. If it vary in degree in different countries, it has gone, or is going, through nearly the same phases in all. The sciences of astronomy, geology, and chemistry, for example, and the arts connected with them such as navigation, mining, dyeing, smelting, &c., are common to all the nations of Europe. All the arts of life are founded on some principles common to the whole human race, and are practised in a similar manner. From science being everywhere the same, we draw the inference that the minds of all men are somewhat alike. They everywhere receive similar impressions from the external world. We all recognise at once the objects a skillful painter places before us. From the same circumstances we also draw the inference that the external cause of man's impressions is everywhere the same. In other words, one spirit animates the whole universe, lives in the external world, and moulds the intellect—it is adapted to man, and man to it. He comes everywhere gradually to comprehend it in the same manner. There are not two astronomies, two mathematics, or two chemistries—one for England and another for Italy; there are not separate sciences for every distinct country, but only one science for all. This similarity or unity of knowledge constitutes the true brotherhood of mankind. They have similar wants, and learn similar means of gratifying them. They have, therefore, a common parentage. Their moral nature is similar, and the external world is the same for all. These common features and intimate relationship were known before the Exhibition; but it has intensified them all. It has set nothing aside, undone nothing, but confirmed and ratified what before existed. It has especially made evident and palpable to all the universal prevalence of a common industry, directed to similar purposes, and guided by similar rules. The differences between the productions of China and France, of Hindostan and the United States, are not so remarkable to reflecting minds as their similarity. Not only similar arts exist in the most distant countries, but similar inventions have taken place; and, not to speak of the art—of making paper, earthenware, and ships, gunpowder, printing, and bank-notes have all been invented in China as in Europe. The great feature of a common parentage, made plain to all by the literature of the Exhibition, cannot fail to influence the fate of mankind. As the common knowledge of the one external cause extends, moulding the mind of all alike, and as the common wants and common means of gratifying them become known, mankind must become more closely linked together. The friendship displayed at Hyde Park between the Chinese, the Germans, Spaniards, Americans, &c., is obviously no fortuitous event, but the necessary result of their common knowledge and common pursuits. From such facts, it is to be inferred that the laws which govern the universe, to which the progress of society is in conformity, are opposed in the long run to the continual political separation of mankind into adverse and hostile nations. We see, in fact, that the separation is lessening and disappearing. The Exhibition has both confirmed the fact, and helped much to explain the law on which it depends. Now, as all legislation and statesmanship look to the future, the Exhibition, with its literature, will be of political value. It proclaims as a great truth, that no legislation can be durable, no statesmanship beneficial, which does not fall in, like the Exhibition itself, with the general progress towards acknowledging and promoting a common brotherhood.

By showing us that all art is founded on common principles, and on science common to all, it impresses on us the important truth, that we shall be powerful, wise, and happy, not as we gain victories over each other, but in proportion as we comprehend that external cause to which all science relates. By comprehending it, we obtain its assistance—the assistance of power that is for us wonderful and almighty—or become like unto it. The precise knowledge taught by the Exhibition will much promote this end. It is opposed to the Chinese and the Americans, who, by their great attention, require close examination, and compel comparison. If there be connected with it, as some persons assert, no little quackery and no little false pretence, its overbearing principle is that of actual precise truth. It subjects the quackery it may excite to the severe test of comparison with the real and the good; and if it give some trumpery a momentary predominance, it is only the more effectually to sweep it away with the truth. It is a great and a useful principle. Its great attraction—for the moment it may appear so—that one characteristic of the Exhibition is to exalt the trivial, and give currency to the worthless, and make us rather pleasure-seeking triflers than earnest men, conscious that moral life is a struggle after improvement, and must be manfully contended for. To that supposition, the precision, which is its chief characteristic, will be, in the end, decidedly opposed; and we believe that its permanent effect, totally different from what is expected of it, will be mentally elevating and ennobling.

A great part of the Exhibition consists of luxuries and ornaments—of jewels for the few, rather than of bread for the multitude; but it contains also working models of powerful and valuable machines. Bringing the two together, forces on the mind at once a comparison and a contrast between the merely ornamental and the useful arts. A steam-engine and the Koh-i-noor are placed before us, and we are called on to choose between them. An improved Jacquard loom, or a power-loom that appears almost with life, or a printing press, arrests attention as well as the sculpture in the Nave and the glittering works in the French department. We depreciate not a single object exhibited, or any product of industry; but these various articles being brought together, the public will judge of them, and form a faithful opinion of their relative value. We submit in the common market a princely estate, a case of diamonds, a cargo of tea, a pound of potatoes, or a handful of cherries; to the test of competition or higgling to determine the value of each; and in all the great business of life we rely on the judgment of individuals. Will the public not then be able to form correct opinions of the utility of a great machine, or a little frippery? and may the rulers and guides of society not rely, with the utmost confidence, on the public mind coming to a same conclusion? We, at least, trust the public. We believe it will form a correct opinion of the articles exhibited, as of the value of wheat or leather; and one of the great improvements effected by exhibiting many things side by side will be, to improve the general discrimination between the merely ornamental and the useful—between the costly ornaments of a lady's toilet and Mr. Maudslay's powerful steam-engine. Instead of making the spectators in love with finery and charmed with luxury, the Exhibition will give them a high idea of human power, and tend to make them discriminate between the worthy of man. We apprehend that it will not only increase careful discrimination between the useful and the merely ornamental, but it will tend to carry out the principle of the latter, and make it more graceful and more beautiful.

As the rule, we may say that the useful arts are the handmaids of the

multitude: the ornamental arts, of the few. The former, depending on the increase of population, which makes progress necessarily, are much more rapidly and certainly improved than the latter. Accordingly, while our journals teem with numerous and loud complaints of a general want of taste—the ornamental arts being neither understood nor appreciated—only admiration is felt for our wonderful mechanical contrivances. The ornamental arts, subserving chiefly the pleasures of the few, have in them something conservative, and they change less and are improved less than the useful arts. In sculpture, for example, we still proud to imitate the Greeks, and rarely hope to attain perfect done, and we do not surpass the Italians of the Middle Ages. Our carvings, perhaps, less skillful than that of the Chinese; and few of our silver-smiths reach the excellence of Benvenuto Cellini. The colours of our garments, their shape and texture, and the ornaments of our houses, are about equal to those of the Hindoos and the Romans. But our power-looms, the knots, and the spinning-mills, the telegraphs, tubular bridges, &c., far beyond anything the people of antiquity ever dreamt of, are the pride of this generation. They are our own invention, and we deem them much more worthy of our admiration than the products of arts we have inherited from the rude nations of antiquity. It may be suspected, therefore, that the superiority sometimes assigned to the ornamental and fine arts is more due to their gratifying the tastes of a few, and to an inherited reverence for them, so far as this generation is concerned, than to their intrinsic worth.

Impressing on man the realities of his condition, and bringing into comparison and contrast the results of various arts and industry produced in all parts of the world, the Exhibition will necessarily inspire increased admiration for the wonderful skill that lifts man out of the hard necessities, the mire of barbarous life, and seemingly places him on the verge of a mastery over nature. It will proportionally abate his admiration for the ornaments of sculpture, and, at the same time, placing their products together, as they do not, in different places, it will facilitate the detection of the principles on which the pleasure they give depends, and help to improve them. The admiration excited by our noble machinery, must make men disdain mere unmeaning trivial ornament, that has nothing to recommend it but its costliness; and we count on the Exhibition, while it increases the knowledge and the love of the beautiful, and the good, discouraging in the end a number of pursuits that have no other object but to gratify vain and senseless pride.

The moral effects of the Exhibition, and, consequently, of its literature, will be most beneficial. Displaying to man the real sources of his power, teaching him how much he is indebted to the inquiries of the philosopher, the skill of the manufacturer, and the art of the mechanic, his reverence will be lessened for all those whose influence over the march of civilisation is by means of their pretensions. Men will form opinions, and the Exhibition will help them to form correct opinions. These are probably more needed at present in the moral than in the physical sciences; and if the habit of precision generated in the multitude from investigating material objects be extended to their political pursuits, their gain will be very great. Abating admiration for mere ornament, the Exhibition is likely, quite contrary to expectation, to increase the desire for wealth as a means of obtaining distinction. Increasing admiration for the noblest and most useful, will compel the genius and talent of the age to improve them. It seems impossible that the men, who are subduing all nature by their skill, should ever entertain a meaner ambition than that of continuing their success. As the warriors of old, proud of their strength, and continually impressed by hostile conflicts with the superiority of war to all other arts, gave up the idea of domestic employment to the women, so must this generation and its successors, proud of the arts which improve society, proud of the command which knowledge, skill, and powerful machinery give man over nature, chiefly honour them, and slight a thousand trivial claims that are now made on their respect. With such lofty objects to interest and to strive for, the desires of men, vulgar ambition will pale its fire; and the highest and noblest, proud only of conquests over matter, will cease to aspire to enthrall the minds and bodies of its fellow-men. The common and great power over the material world, the result more of the general mind and general progress than of any one individual's skill, seems the basis of equality in society; and we may look to the Exhibition, however unexpected may be these consequences, to diminish ruinous ambition as well as a ruinous love of wealth. As the teaching minds of society are devoted more and more to the useful arts, society will disregard practices that have now no other recommendation than that they were suited to a former condition of society, when men lived predatory lives, and had to fight for the means of subsistence. In all moral questions as well as in questions of the material world, in questions of government as well as questions of education, and regulating creeds, as well as sowing corn and navigating ships, the Exhibition, by enlarging man's knowledge of science, will make him more careful to study and obey the laws of the universe. Giving much delight to rich and poor, foreigners and natives, the Exhibition, sharing the attributes of nature, has improved the species by means of enjoyment. Taking place at a time when there is abundance in the land, and when the people generally are profitably employed, without which, in fact, it could scarcely succeed, it is not only a great present benefit, but it seems with physical and moral improvement hereafter. We do not say that it is a harbinger of a golden age, but it forms part of a period of very great peace and happiness, which it promises to continue and to increase. It is the townspeople's child, rather than the child of the rural population; the offspring of trade, rather than of politics—of a population which is growing and of principles which are just come, or coming into the ascendancy, rather than of a population which is stationary or principles which are falling to decay. We may count, therefore, on a further and continued increase of all its benefits. The literature that has grown from it, and deserves it, and makes its existence known to many millions who are denied the pleasure of seeing it, must be very influential both now and hereafter. To draw attention to that literature, making it, we hope, still more influential and more worthy of the great cause to which it is devoted, is the object of the task now concluded.

PRIEST'S ROBES. HALLÉ.

Another of the embroidered priest's robes, by Hallé, of Brussels, will serve to show the variety of device lavished upon these garments.

PRIEST'S DRESS.—BY VAN HALLÉ, BRUGES.

SEWELL'S BOBBIN NET MACHINE.

Perhaps the finest collection of net machines in this country, and which we have had the opportunity of seeing, is that at Tiverton, belonging to J. Heathcoat, Esq., M.P., who was the first to produce a practically useful bobbin net machine.

Many other persons also have exercised their ingenuity and skill in effecting useful novelties in this particular class of machinery; among others we may mention Mr. T. R. Sewell, of Tiverton, near Nottingham, who contributes to the World's Industrial Display what is called a "double tier machine," in contradistinction to the "single tier machine," in which only one "row" or "tier" of bobbins and carriages is worked at the same time; whereas in that under consideration, two tiers of bobbins and carriages are worked simultaneously. The machine contains 2400 bobbins and carriages, each bobbin containing about 100 yards of thread; an equal number of threads proceeding from the warp beam are brought in question, round which the bobbin thread is twisted by means of the forward and backward motion of the bobbins and carriages.

Besides the motion of the bobbins and their carriages "to and fro" between the warp threads, they have another motion to the right and left, by means of which the bobbin threads are made to cross each other: this operation gives greater stability to the net, even if made of thread of very low quality. When the bobbin threads have been twisted sufficiently round the warp threads, and have also crossed each other, as already mentioned, a set of steel points descend, and take up the twisted and crossed threads, and put them into the form of meshes; and thus, by continually repeating these operations, a piece of net is produced equal to 120 yards superficial, the quantity of twisted thread consumed

for this purpose amounting to 24,000 yards. The size of the piece is, of course, regulated by the number of bobbins employed, and the length of thread on each bobbin. When a piece of net is completed, the bobbins are reeled with thread, ready for a repetition of the operations described. The advantages of Mr. Sewell's bobbin-net machine are—first, its simplicity and economy of construction; secondly, its efficiency while in operation; and, lastly, its facility of management.

COLLINGS' HORIZONTAL SUGAR-CANE CRUSHING MACHINE.

The name of Collinge is well known, especially in connexion with axletrees and hinges. In the department of the Great Exhibition devoted to "machinery in motion" we find exhibited by Messrs. Charles Collinge and Co. "an improved horizontal sugar-cane crushing machine," two screw lifting jacks, and a portable direct-acting high-pressure steam-engine.

Several machines for crushing the sugar-cane are to be found in different parts of the Building, including the gigantic apparatus of Messrs. Robinson and Co., of the Isle of Dogs. In Messrs. Collinge's cane-crushing machine, a vertical shaft is so arranged that power may be received either from a windmill, from water, or, if desirable, from a steam-engine; on one side is the "feeding board," on which the cane is first placed, and thence passing between three rollers is so completely crushed as to express the juice. This juice is then placed underneath the rollers, from which it is conducted by a side pipe to the boiling-house. The amount of compressing force may be regulated to great variety by means of a screw adjustment acting on the bearings of the rollers.

In search of finer elegances of the same description we have no long space to traverse; for in one of the rooms appropriated to the Zolliverein we meet with a rich assortment of bracelets, brooches, &c., which, although presenting a less striking *coup d'œil* than those above alluded to, offer individual specimens decidedly worthy of attention. A brooch and ear-ring *en suite* (No. 140) are rather peculiar in design and of great elegance: each ornament is in the shape of a graceful, and of great size, leaf, which is closely studded over with small rubies of varying shades of colour, reminding us of the original leaf in its half faded state. It struck me as remarkably novel in design. Another beautiful set, of gold, opals, and green enamel, is very striking; though two massive bracelets of frosted gold claimed a longer look of admiration than any other rivals of higher pretence. The chief adornment of one is that of two oak-leaves entwined together; and the other two, which are of the same design, are so constructed, that the arm is supposed to be a small twisted oak branch, so perfectly is the original idea carried throughout. The companion bracelet is entirely of gold, also wrought into a cluster of leaves, from which a little Cupid seems struggling to free himself. A brooch, representing a combat between a lion and a serpent with diamonds, should also be here particularised. A small round case (411) contains many specimens of plain gold, generally of twisted forms, another of the same description of ornament, with red coral introduced. Where all are so deserving admiration, it is difficult to distinguish the most beautiful; but one, representing a large serpent, is remarkable for its great resemblance to nature: it seems to have coiled itself naturally, but most artistically, round a very picturesque branch of coral. Another bracelet, representing a serpent, is of the same design, and of the same colour, that had to be endowed with a strong love of the odd and curious in jewellery not to feel a shrinking repugnance in placing it on her arm. It is worthy of minute inspection, for its singularity, if not for its beauty. I could almost fancy it to have been the cherished ornament of some Egyptian priestess. Many beautiful ornaments for the person in oxidised silver are scattered over the various rooms; and in the room to which we have now retired curiosity is eluded; and in taking a view of the jewellery therein exhibited, it is with a conviction that so varied an amount of treasures of this description can never again be collected under one roof, either in our own or in any other country.



GROUP OF CHINA.—BY MESSRS. DANIELLS.

PORCELAIN. EXHIBITED BY DANIELLS.

The manufacture of porcelain is of comparatively recent date with us; it being not yet a century since Mr. Cookworthy, of Plymouth, after drawing attention to the great clay deposits of Cornwall, eventually removed to Worcester, where he established what has since grown into a highly important branch of manufacture. The displays of British porcelain, both of the tender and of the hard or semi-vitrified kind, are abundant and extremely interesting, whilst they are in the highest degree creditable to the industry and enterprise of their producers. In our present Engraving we give a group of different objects exhibited by Messrs. Daniels, executed for them by Messrs. Rose, at the Colebrook Dale china manufactory. Messrs. Rose have had the good fortune to discover the once-celebrated rose Dubarry, a pale pink employed upon Sevres china, and so called after that favourite mistress of Royalty. There are several beautiful specimens of this delicate colour in the works before us, intermixed with other colours and

gilding in the richest profusion. The forms of the various articles are, for the most part, extremely elegant. (See also page 127.)

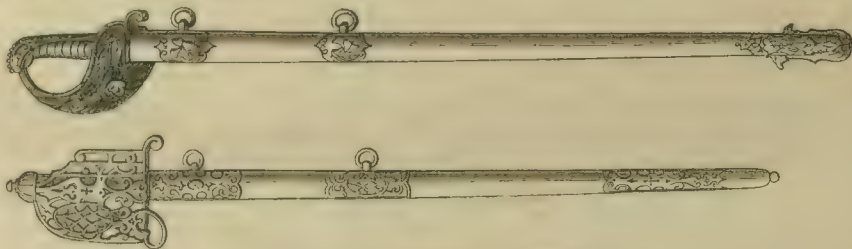
CLARET JUG AND GLASS. BY W. NAYLOR.

Amongst the very handsome display of table glass sent in by Naylor,



GLASS.—BY J. NAYLOR, PRINCES-STREET.

of Princes-street, is a claret jug and glass, cut in devices in honour of the Prince of Wales. The manufacturer has sent us a detailed description of these articles, which we may as well give in his own words, as a matter of historic curiosity in connexion with the Exhibition:—"In the centre of jug his Royal Highness the Prince of Wales, in sailor's attire, leaning against a rock, which represents the firm foundation of Britain. In his left hand he holds the British flag, in his right hand the full-blown rose, representing England. At his feet is a dog, looking up to the Prince, denoting the confidence and fidelity of British subjects. To the left of the Prince is an oak tree, in full bloom, with the ivy clinging to it, showing the strength of the English constitution, and the attachment of the people towards it. The rays shining upon, and the hand from behind the tree dropping a wreath of laurel, denote the eye of Providence smiling, and the hand of Providence crowning the Prince with prosperity. On one side is a wreath of grape-vine and laurel, emblematical of the flourishing and victorious state of the



SWORDS.—BY REEVES, GREAVES' AND CO., BIRMINGHAM.



SIDEBOARD.—BY MESSRS. JOHNSON AND JEANES.

country, anticipated during his reign, in the centre of which is his coat of arms. Opposite is a wreath of oak and ivy, denoting the stability and devotedness of the English people. In the centre of this, a group of rose, shamrock, and thistle firmly tied, representing the union of the three kingdoms, descending upon which is a dove with an olive leaf, denoting peace with the world. In the centre of neck, a bunch of forget-me-not, the remaining part of neck filled up by a leaf from every plant represented on the jug." We have only to add, that the glass employed is of first-rate colour and quality, and the workmanship unexceptionable.

SWORDS. BY REEVES, GREAVES, AND CO.

Messrs. Reeves, Greaves, and Co., of Birmingham, exhibit a large assortment of swords of various kinds, intended for general use. They are extremely well manufactured. The two which we engrave are a Scotch claymore and an ordinary cavalry sword.

SIDEBOARD. BY JOHNSON AND JEANES.

The mahogany sideboard exhibited by Messrs. Johnson and Jeanes, of Bond-street, is a very handsome production, of admirable workmanship. The supports are boys, with grapes, &c., resting respectively upon a lion and a tiger. The mouldings along the edges are very bold, and carefully finished.

IVORY THRONE, &c. EAST INDIA COMPANY.

This magnificent throne, of carved ivory, is one of the chief attractions, recently added, of the East India Company's tent. The carving, both back and front, is most elaborate, and of exquisite finish; the seat and back being covered with rich green velvet embroidered in gold. The footstool is of like materials and workmanship. The chairs on either side are beautiful specimens of Bombay carving, in black-wood, the boldness and lightness of which are equally remarkable.

GIRL PRAYING. BY J. A. M'DOWALL, R.A.

This is a pleasing little subject, agreeably treated in marble by Mr. M'Dowall. It stands in the South Transept.

PARIAN. BY ROSE AND CO.

In addition to the porcelain by Messrs. Rose and Co., of Colport, represented in the opposite page, we have engraved their large group of "Pleiades adorning Night," which we have already characterized as elegantly treated (See page 127). On each side of the group is an ornamental piece of the same beautiful material, both of elegant design.



IVORY THRONE, EXHIBITED BY HER MAJESTY; AND TWO CHAIRS OF BLACK-WOOD, IN EAST INDIA COMPANY'S TENT.

HOLTZAPFFEL'S LATHES.

In addition to the numerous beautiful specimens of turning contributed to the Great Exhibition by Messrs. Holtzapffel and Co., and

We especially call the attention of visitors to the Crystal Palace to the numerous beautiful specimens, exhibited by Holtzapffel and Co., of ornamental turning, as executed by various amateurs, comprising

which we alluded to in a former notice, this eminent firm has recently added a valuable rose engine, for ornamenting turned surfaces, and also a lathe for ornamental turning, both of which are now shown in operation in the Machinery in Motion Department. It is rather singular that there are no other machines at work in the Crystal Palace applicable to this peculiar branch of art. The rose engine is very completely fitted with a variety of apparatus, such as a compound sliding rest, segment engine, oblique motion, eccentric, oval, straight-line, spherical, geometric, and many other clucks; which are employed either independently or in combination with each other, with or without the rose engine movement, which in itself is a prolific source of elegant embellishment. The results of these combinations present infinite variety of most curious and highly ornamental patterns, somewhat similar to those of ornamented watch-cases, but of a much more elaborate description.

The lathes for ornamental turning exhibited by the same house are fitted in an equally complete manner, not only with the various chucks already mentioned, but also with other apparatus, as vertical, horizontal, universal, eccentric, and elliptical cutting frames. In this class of instruments the tools revolve, while the work under operation remains stationary; being the opposite condition to that usually observed in ordinary and rose-engine turning. In some instances a still larger amount of elaborate work is produced by putting both the work and the tool in motion at the same time. And when, in addition to these powers of combination, it is considered that the tools themselves are made in every variety of form, it will easily be conceived that the apparatus is capable of producing an unlimited number of different figures, applicable both to the production of forms and the embellishment of surfaces.



GIRL PRAYING.—BY J. A. M'DOWALL, R.A.



PARIAN.—"THE PLEIADES ADORNING NIGHT," ETC.—BY MESSRS. J. ROSE AND CO.

God and unfit to be used amongst Christians. Pope Innocent III. considered the prohibition, which was observed under the reign of Louis the Young and of Philip Auguste, but immediately afterwards discontinued both in England and France. Subsequently, Richard I. introduced the cross-bow into our armies, and his death, as all know, was caused by an arrow or bolt discharged from one of these weapons, during the siege of Chalus, in Normandy—a judgment, as was said, for his temerity.

About the time of Edward II. the use of the long bow in the English armies was greatly extended, although the cross-bow continued still to be employed. About this period, we find the cross-bowman precisely indicated by the word "ballistarius," "agilitarius" being the appellation of the long-bowman. In the reign of Edward III., the long bow may be said to have become the national weapon of the English. This monarch took great pains to increase its efficacy, and at the battle of Crecy, the superiority of the long bow over the cross-bow was well shown. The battle was ushered in by a shower of rain, from the effects of which the bow-strings of the Genoese cross-bowmen in the service of France were so relaxed that the weapons were almost useless; whereas the English long bows, having just emerged from their cases, played with terrible effect. Now the very shape of the cross-bow would prevent its being put into a case; and, moreover, soldiers armed with this weapon could never stand closely together.

Ten years afterwards occurred the battle of Poitiers, in which the part taken by our archers is well known. The sanguinary victory of Hainault against the Scots was entirely won by English archers, who again did terrible execution at the battle of Shrewsbury, where Hotspur was slain; and at Agincourt scarce a lance was couched or sword drawn. It was no wonder, then, that the long bow became the favourite English weapon, especially, and protected by every British Sovereign from Edward II. to Charles I. Henry VIII. altogether prohibited the use of the cross-bow; and Henry VIII. renewed the prohibition; indeed, he went further, and passed a statute by which a fine of £10 was inflicted on any person who should have a cross-bow or hand-gun discovered in his house.

Although the long bow was held in much estimation by the bluff monarch, yet so far from this being a detriment to its considerable perfection. Even much later, during the reign of Elizabeth, the bow was considered by many a superior weapon to the musket.

Unquestionably the longest arrow flight on record is mentioned in a story told by Fidoius, the Persian Homer, and repeated by many historians of good repute. We will add to these number of narrators, without at all pledging ourselves as to the truth of Fidoius's story. In ancient times, especially, the Persian monarchs, and the Persian monarchs, made peace with Afrasiab, the Scythian invader, one of the articles of treaty was, that Persia should have all the country to the north-east over which an arrow could be shot from Demavend. A hero, named Arish, ascended to the top of the mountain, and shot an arrow to the banks of the Oxus, a distance of between five and six hundred miles. It stands to reason that so long a range must have required a perceptible time, according to the most accurate information, the arrow was discharged at sunrise did not fall until noon! Now, so extraordinary a shot would seem to relate to long bow practice, but the long bow was not known to the Persians.

The English archers, celebrated as they were in the use of the bow, never accomplished anything approaching to the Persian feat; their most range was scarcely more than 500 or 600 yards, and our degenerate modern Toxophilites can only achieve 400 or 500 yards. The Turkish invader, who, when in England in 1795, sent an arrow upwards of 450 yards, in the presence of several members of the Toxophilite Society. His bow was made of horn, and is still in their possession. This was considered at the time a very long shot, yet two or three have occurred since archery has been a pastime which have exceeded it by twenty or thirty yards. There is a tradition that an Attorney of Wigan, in Lancashire, threw a mile in three flights; and a second statutory enactment during the reign of Henry VIII. imposes a penalty on any person who, being above the age of twenty-four, shoots at any mark at a less distance than eleven score yards.

And now, before totally discarding the bow, and proceeding to the description of guns individually, it may be interesting to examine for testimony concerning the power of the weapon of our early archers. In our hands the bow is, indeed, no toy, but a weapon of terrific effect, as we have abundant testimony to prove. One of the most interesting cases of the power of the long-bow that we know of is recorded in the works of one William Clowes, a surgeon in the reign of Elizabeth, who relates, as a professional case in his own practice, the difficulties he experienced in extracting the barb of an arrow from the leg-bone of one Master Whitepole. It appears that this person went to enjoy an archery review of our great Queen Bess, and, to put himself beyond the range of accidents, he stood a long way from the target—how far away we are not told. Notwithstanding his care, Master Whitepole received a shaft arrow in the bone of his leg, and it would appear that the soldier who shot him was at least 200 yards distant. A surgeon being on the field of review, the sufferer was committed to his charge, but without avail, for the arrow-head could not be extracted. Eventually, our surgeon author, Clowes was called in, who, we are more fortunate, "I did put down a probe," says he, "in the bottom, where manifestly I did feel the head of ye arrow, and I was driven to make a reasonable large incision down unto ye bottom; whereupon I did put down a distillator, to open ye wound, and so presently I did take hold of ye arrow-head by a rostrum grunium." Unquestionably, doctors were the most deadly of all warlike engines in those days. Mr. Clowes no sooner extracts the arrow, than he writes many stanzas of poetry in glorification of his triumph, and designates the less fortunate surgeon "a treacherous rascall, counterfeit, land-lord, sophistical mountebank, cozening quack-salver, and false ingling deceiver, whose bloody hands, without knowledge, doe hazard the lives of many."

The instance we have given of the power of ancient archery bears the stamp of evident authenticity, and represents a sufficiently terrible effect. Other and more ancient examples, representing the bow in a still more formidable light, are to be found. Thus, the old author, Giraldus Cambrensis, says, "that certain Welsh archers shot at the oak doors of a portal, behind which a party of soldiers had concealed themselves. These doors were no less than four inches in thickness; nevertheless, the arrows penetrated quite through." The same author also states, on the authority of William de Breuss, that, at a battle where the latter was present, a Welshman, having directed an arrow at a horse-soldier clad in armour with his lance under the saddle, the arrow pierced him through the hip, penetrated the saddle, and mortally wounded the horse. Another Welsh soldier performed a similar feat, with this addition: the man, feeling the wound, turned about, when immediately a second shaft penetrated the other hip, and fastened him to the saddle on that side also, in such a manner that he could not dismount!

The Cornish, as well as the Welsh, were also greatly celebrated for their skill in archery. Carew, speaking of the skill of Cornish archers two centuries back, says, "Their shaft was a cloth-yard in length, and their prickles twenty-four score paces (equal to 480 yards); and, for strength, they could pierce any ordinary armour; and one Robert Arundel, whom I well knew, could shoot twelve score aces with his right hand, with his left, and from behind his head."

Another anecdote of the skill of Cornish archers is related in Hall's "Life of Henry VIII." "There came to his Grace (the King) a certain man with a bow and arrow, and he desired his Grace to take the muster of him, and to see him shoot; for that time his Grace was contented; the man put his one foot in his bosom and soe dyd shote, and shote a very good shote, and well towards his mark, whereof not only his Grace but all others greatly marvelled: soe the Kyng gave him a reward, and for that curious feat he afterwards obtained the by-name of 'foot in bosom.'"

With regard to the comparative powers and length of range of the cross-bow and long bow, it might be assumed that the former, lent as it is by machinery, would excel; such, however, does not seem to be the case. According to an ancient author on projectile arms, the cross-bow would kill at a point blank range of forty to sixty yards, but, if elevated, much farther; still not so far as the long bow. On the whole, it would seem that the cross-bow was more certain of hitting a small mark than the long bow, but would neither project so far nor was it capable of being discharged with such rapidity. Cross-bows usually shot short darts termed quarrels, or *corvantes*, but occasionally bullets, which latter are now universally employed when modern art-pedubians have recourse to the cross-bow for the purpose of shooting rooks.

We will draw our rapid sketch of the history of the bow to a conclusion by stating that the last time cross-bows were used in our armies was in 1627, in the attack on the island of Ric. The long bow, however, remained in use much later. In 1643 a company of archers was raised for the service of Charles I. and the Marquis of Montrose employed archers against the Scots.

One great disadvantage under which both archers and cross-bow men laboured, was their want of means of defence against charges of cavalry. For the purpose of defending themselves under these circumstances they

were supplied with sharp stakes, which they planted in the ground, and presented to the advancing troops, after the plan of the modern hedge. Very late in the annals of military archery, during the reign of Charles I., one Neade developed the use of the bow and pike together; but, notwithstanding the traditional affection with which the fletcher (or arrow-maker) and bowyers viewed military archery, the musket was now too far installed for the bow to maintain its standing. The reader must not imagine, however, that the muskets of the time of Charles I. were the effective instruments of our own time; on the contrary, they were heavy and unwieldy; troublesome to charge and discharge, slow to manoeuvre, and still more defenceless than the bow against cavalry. When first introduced, those who used them seem to have carried their ammunition and borne their pieces just as pleased their own fancy. Some used cartridges, some flasks, and all were under the necessity of carrying two kinds of powder—one grained, for the charge; the other, *mealed*, called *fouch* or *luch* powder, for priming. An ancient author on fire-arms employs considerable argument to prove that a properly charged gun should have wadding interposed between the powder and ball; and he expressly informs soldiers that wadding should be lightly rammed down on the ball, to prevent its rolling out. In the reign of James and Charles I., an appendage called the bandelier was introduced, for the purpose of carrying the musketeer's ammunition. It consisted of a belt, from which various sizes of charges of powder and ball. Thus the soldier was spared some trouble in carrying his piece, but was, at the same time, exposed to the danger of having his bandelier take fire.

The Spaniards, under Philip II., are said to have been the first to employ small fire-arms in the year 1555, at least, small fire-arms in our acceptance of the term. Instruments called hand cannons are said to have been introduced into the English army in 1471, when Edward IV., landing at Ravenspur, in Yorkshire, brought with him among other forces, 300 Flemings, armed with these weapons.

The greatest revolution which has taken place in the construction of portable fire-arms, concerns the lock or discharging apparatus. At first they were totally devoid of lock, and their discharge was effected by manual application of a match: then followed the match-lock; next the wheel-pyrites lock; then the ordinary flint lock; and, finally, the various kinds of percussion locks, which will more properly fall under our notice by and by. The match-lock scarcely merits description, and flint and percussion locks are, it is presumed, familiar to all. The wheel-lock, however, perhaps few have seen, and, therefore, a slight description of it may not be amiss. Whoever has observed the shower of sparks which fly off from a razor-grinder's apparatus will have a very fair idea of the construction of a wheel-lock. The wheel, which was made of steel, and was caused to rub against a flint or lump of pyrites; it was, moreover, wound up by a key, so that, on pulling a trigger, it spun round with great velocity, emitted a shower of sparks, and thus ignited the charge. The pyrites or wheel-lock was introduced into England about the reign of Henry VIII., and continued in use until the reign of Charles II., when the flint-lock became general. The percussion-lock, as most people know, is a very recent discovery indeed.

We have no further space to devote to the history of the bow or ancient guns, and will now take leave of our readers, by directing their attention, not only to the English bows in the Exhibition, but also to some very pretty specimens of Swiss make, in the department of that little republic. Our next article will be devoted to the examination of special peculiarities of modern guns.

NASMITH'S STEAM HAMMER.

Perhaps there is not on record an invention which has introduced itself into such extensive use in so short a time as Nasmyth's extraordinary steam hammer. One of these powerful engines, of the size and form in which it is placed in the southern division of the Machinery department of the Great Exhibition, not far from the Britannia hydraulic press; and, indeed, it is much to be regretted that this most useful engine is not shown at work, neither is there any account of it in the official and illustrated Catalogue. Since 1849, in which year Mr. James Nasmyth took out his patent, not fewer than 300 of these powerful and manageable machines have been constructed and distributed in all quarters of the globe. In many of the large engineering establishments around London, we find even three and four called into requisition; and we advise those of our London readers who have an opportunity of visiting any of the respective establishments of Messrs. Maudslay and Field, Langley and Field (who have three hammers of the respective weights of 30, 15, and 5 cwt., for different kinds of work); Penn and Son, Greenwich; Blyth and Co. and Seaward and Co., Limehouse; Miller and Ravenhill, Blackwall; and last, though most important of all, the highly interesting and extensive iron ship-building establishment of Messrs. J. C. Mare and Co., at the Orchard House, Blackwall, to lose no time in seeing the extraordinary operations performed through the instrumentality of the steam hammer, requiring for itself the attendance of one person only. The accompanying Engraving represents an elevation of the hammer, which for this, the most useful size, weighs only 30 cwt.; but the gigantic machine of the kind which has yet been turned out is that at Messrs. Mare's large works, having a hammer of 6 tons weight, with a stroke of 6 feet. On a recent visit to this establishment, we found one of those ponderous and apparently unwieldy paddle-wheel shafts for a pair of marine engines, building by the celebrated firm of Maudslay and Field; this shaft, which had been entirely forged by the giant hammer "Thor," occupied upwards of three weeks from its commencement to its completion: it is of the extraordinary weight of 16 tons, and 27 feet 9 inches in length; yet, by aid of a powerful crane, the operation of welding and forging this large mass is rendered as simple and easy as that of a horse-shoe in the hands of a country smith. Messrs. Mare and Co. have also three other Nasmyth hammers, each decreasing in power to suit various kinds of work. Referring to the hammer contributed to the World's Fair, we find the anvil, which is chiefly buried below the floor, weighs eight tons; the hammer itself, already mentioned, and which is supported from the piston rod, 14 tons; the piston which works in the cylinder, placed at top of the machine, is of 16 inches diameter; and the extreme fall of the hammer, or what in steam-engines is usually called the stroke, is equal to 42 inches. The ingress steam pipe is of two inches diameter, the pressure of steam usually employed being equal to 40 lb. on the square inch, which, as we have in another communication stated, is about the same as that at which the steam enters the Machinery in Motion department of the Great Exhibition. The hammer being on the self-acting principle, every degree of blow, from that of merely cracking an egg-shell to that of a dead pressure of 500 tons, is attainable. The whole weight of the frame at the base of the hammer is 15 feet; the height of the machine being about 15 feet. The frame is bolted down to large iron plates let in flush with the floor; but if the hammer at the Exhibition had been intended to have been shown in operation, a much stronger foundation would have been required. By admitting the steam under the piston, the hammer is elevated to the desired height; and by its gravity the hammer falls, and the blow is instantly exerted. It is desirable, by the admission of steam, according to the particular kind of blow required. In ordinary work, as many as 70 blows are given in a minute.

In the former part of this notice we mentioned the large engineering establishments in and around the metropolis, at which the steam hammer may daily be seen fulfilling its appointed duties; but at all the principal anchor-makers, at all the large engine builders, and at the principal iron-manufacturing establishments in the kingdom, the making up of iron, either from scrap, old rails, hoops, or from the pile, is also effected by means of the Nasmyth hammer.

From a statement of iron made by the use of this machine at the North-Western Company's manufacturing establishment at Crewe, in six months ending June, 1851, we find that upwards of 176 tons of iron, in the shape of ties, axles, &c., including a shaft for a stationary engine, was made; and that, after deducting the cost of wages, scrap iron, and coals, there is a clear profit of upwards of £3000. Nothing can be more convincing of the utility of this engine than the

above fact. Before the introduction of this adjunct to the smithy, the forging of the large marine engine shafts was not only a tedious but an uncertain process; and many an accident which has occurred to the ocean steamers might have been traced to the imperfect forging of the iron; for, without blows of sufficient energy, it is impossible to expel the scoria from between the bundles of iron rods, which, as in the United States, they attempted to weld together to form their main shafts.

Before concluding, we may draw the attention of our friends to those beautiful anchors forming part of the Great Industrial Show, which are seen by comparatively few of the visitors to the Great Exhibition—on account of being placed in the yard at the west end of the Building—any of which were wrought by the aid of the steam hammer, and which are severally contributed by Brown, Lennox, and Co.; the Bedlington Company, near North Shields; and Fox, Henderson, and Co., the constructors of the Palace of Glass, for Captain Rogers, who has designed a new form of anchor.

It is quite impossible to say to what uses Nasmyth's last invention will hereafter be applied. At the present time, however, in addition to the formidable kind of work for which it has hitherto chiefly been employed, its application to the stamping out of dish-covers, and the moulding and forming of silver plate, is now in progress.

It is curious enough, in looking over the specification of James Watt, to discover that he had thought of using a hammer in connexion with the power of steam, but had never worked out the really useful mode of applying the hammer, viz. that of attaching it to the piston-rod itself. This important step was left for the genius of one of our own times practically to carry out. It is in Watt's patent of April 28, 1784, that we find the following:—

My fifth new improvement consists in applying the power of steam or fire engines to the moving of heavy hammers, or stampers, for forging or stamping iron, copper, and other metals or matters, without the intervention of rotative motions or wheels, by fixing the hammer or stamper to be worked either directly to the piston or piston-rod of this engine, or upon or to the working beam of the engine, or by fixing the hammer or stamper upon a secondary lever or helve, and connecting the said lever or helve, by means of a strap or of a strong rod, to or with the working beam of the engine, or to or with its piston or piston-rod.

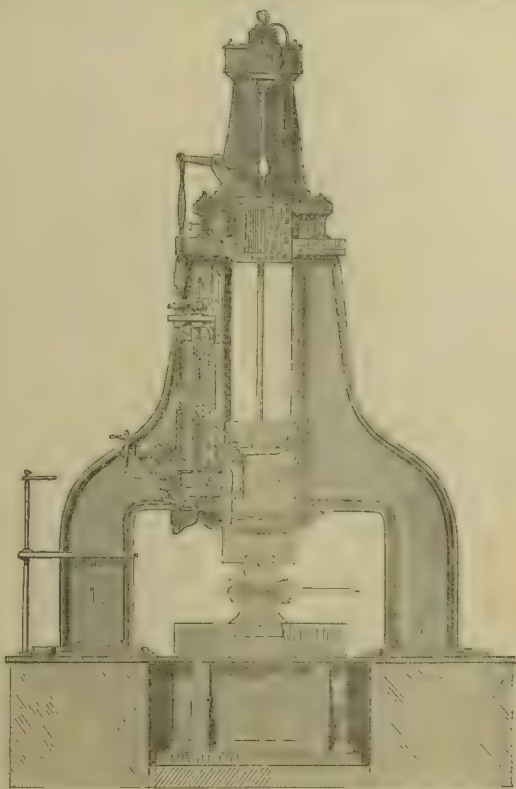
BARTON AND EAMES' LACE GASSING MACHINE.

Mr. Samuel Hall, of Basford, near Nottingham, whose name is favourably known on account of his condensing apparatus and other inventions, originally took out a patent for a machine for gassing lace; and in order to show the importance of this invention, it is only necessary to state that the cost of burning off the fibres from muslin and other delicate fabrics, some thirty-five years ago was at the rate of 6d. per square yard, whereas at the present time as much as 600 square yards of lace may be gassed for the same sum.

The gassing machine in the Machinery in Motion Department of the Great Exhibition, which is exhibited by Messrs. Barton and Eames, consists of a series of gas-burners, placed in a straight line, and regulated in length by the width of lace to be "gassed." The lace is made to pass through the various jets of gas at such a velocity as will just remove the fibres by which the whole surface is covered, and yet not destroy the fabric itself. It is quite evident, therefore, that the exact speed at which the lace is required to travel through the jets of gas must be regulated with great nicety; for if the velocity be too great, the object in view will not be attained.

During the process of gassing the lace is carefully watched by four persons, two of whom stand in front, and two behind the machine, in order to see that the lace is duly gassed, and also to prevent the fabric itself taking fire.

Cotton thread which has been subjected to a process somewhat similar to that above directed, by means of a machine somewhat modified from



NASMITH'S STEAM HAMMER.

that in the Exhibition, is sold in the market as the "gassed thread," and in consequence commands a higher price.

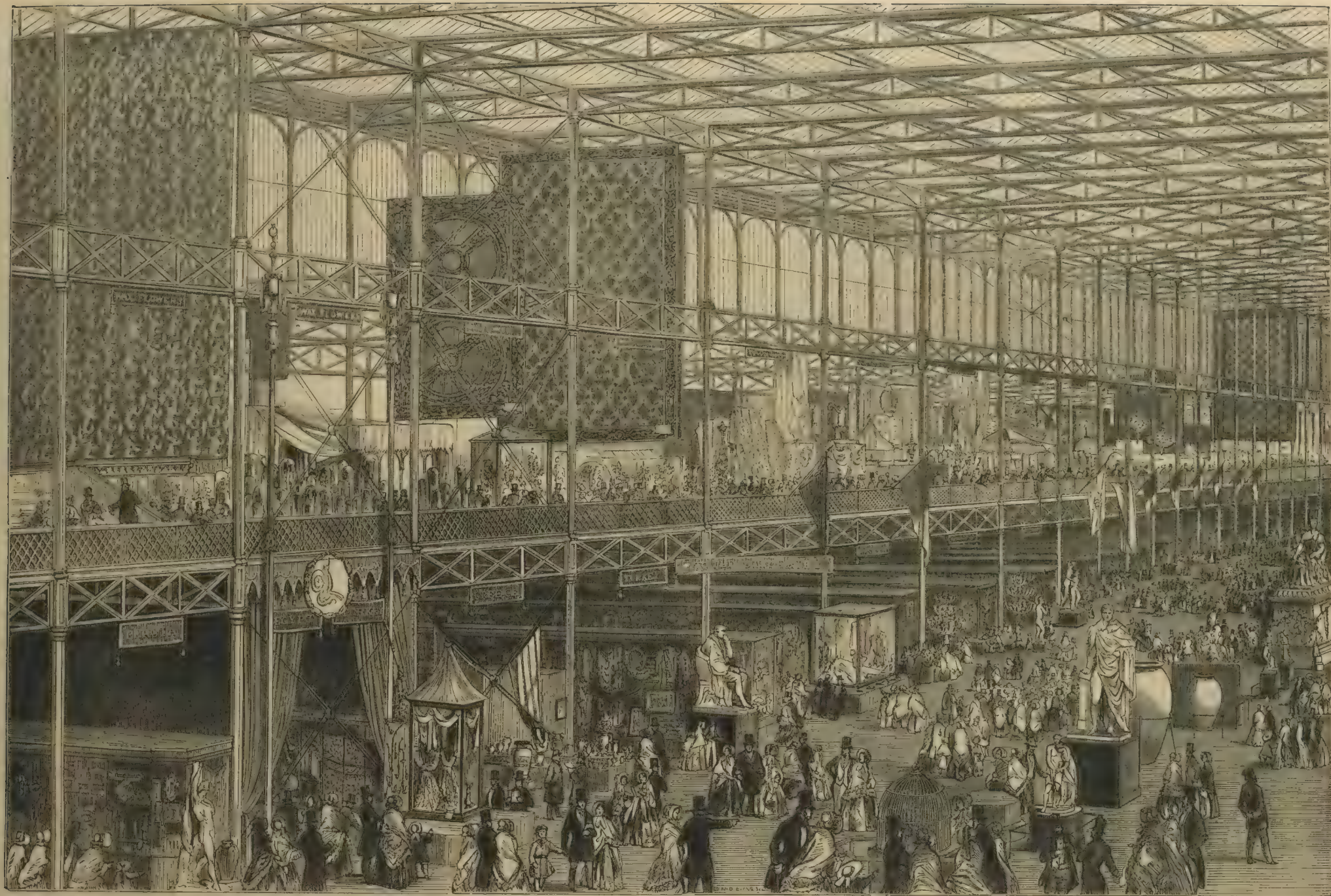
BIDDELL'S PATENT SELF-REGULATING GAS-BURNER.

The difficulty of maintaining a uniform flame in the ordinary gas-burner is well known, not only to the manufacturer of burners, but also to the consumer of gas. To remedy so glaring a defect in artificial lighting has long been a desideratum; and it was left for Mr. Bidwell, of Ipswich, to accomplish so great and valuable an improvement; and the mode in which he has accomplished this is by the most philosophical means.

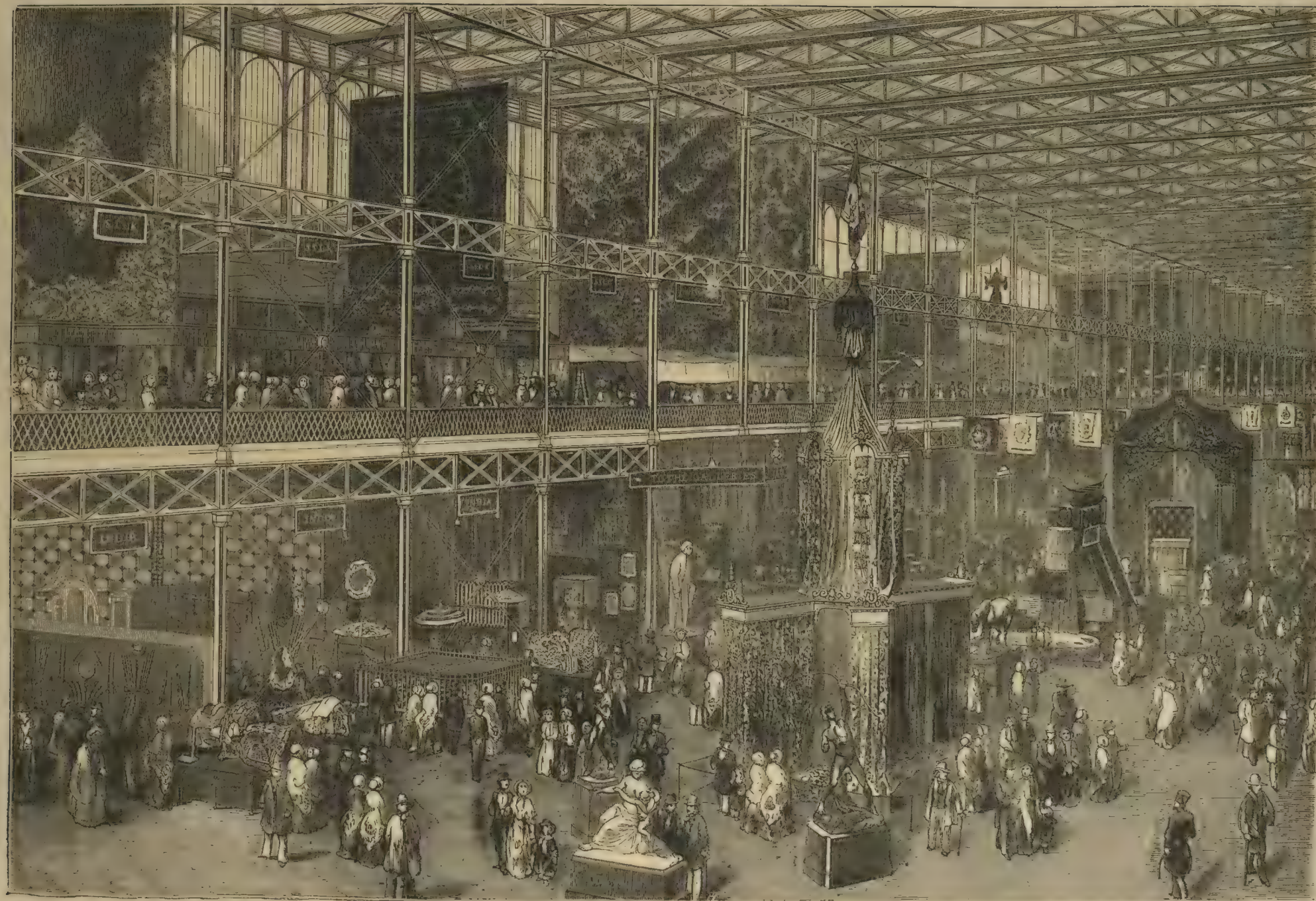
The inventor had in view, when he first proposed to remedy the defect already alluded to, the compensation pendulum of a clock, whose true length is preserved, notwithstanding the alternation of heat and cold to which it is continually subjected.

Thus Mr. Bidwell introduces into the centre of the burner a vertical compound rod of about 4 inch diameter, consisting of brass and steel, the cylindrical case being of brass, and the core within of steel. By the expansion and contraction of this rod,

which is surrounded by the flame, a small lever and simple valve, in connexion with the bottom of the rod, is acted upon so delicately that the exact amount of gas required to preserve uniformity of flame is regularly preserved.



THE GREAT EXHIBITION.—THE EAST NAVE VIEWED FROM THE SOUTH-WESTERN GALLERY.—(FROM A DAGUERRETYPE BY CLAUDET.)



THE GREAT EXHIBITION.—THE WEST NAVE VIEWED FROM THE NORTH-EASTERN GALLERY.—(FROM A DAGUERRETYPE BY CLAUDEL.)

MACHINERY IN MOTION.

(SECOND NOTICE.)

With this week resume our description of Mr. Gwynne's centrifugal pump, from p. 250. There is a circular opening in one side of the case rather larger than that in the piston, through which the suction-pipe passes. The inner end of this suction-pipe is furnished with a collar, by which it is secured to a corresponding projection in the side of the piston. It is requisite that this joint should be made quite tight, to prevent the admission of sand, grit, &c. The discharge-pipe (in the present instance placed vertically) is fixed on one side of the receiver. A hollow balancing-nut is fixed in an opening on the opposite side to that in which the suction-pipe is fixed, the object of which is to equalize the lateral pressure on the piston. The main journal of the shaft is attached to the hollow balancing-nut, passing through a proper stuffing-box and gland, to render the whole properly water-tight.

In cases of fire, a pump on Mr. Gwynne's plan, with a discharge-pipe of 9 inches diameter, will throw 4000 gallons per minute; and for raising water from mines with a piston of 48 inches diameter (the pump making 400 revolutions per minute), the water would be raised to a height of 120 feet.

The proprietor invites practical men to apply any reasonable test to his direct-acting balanced centrifugal pump, so that they may be enabled to make a comparison with other machines intended for the same purpose.

The general arrangement of Edwards' direct-acting engine (No. 12) is not very dissimilar to that of several other engines exhibited in motion. The fly-wheel and pulley are, as usual, on the crank shaft. From the pulley the motion, by means of a leather band, is communicated to a second pulley, and so to the various American machines already mentioned.

We now come to the novel and ingenious engine of Messrs. Simpson and Shipton, which is worthy of especial attention. It is called by the inventors and proprietors, a "Patent Short-stroke Reciprocating Engine." The great object has been to unite, in as simple a form as possible, the advantages of the reciprocating and rotary engine, and thus obtain that kind of power which is equally applicable to engines required either for stationary, locomotive, or marine purposes. Thus, in the present instance, the piston and connecting rod are placed in a position being moved from top to bottom and from bottom to top of the steam-chamber alternately, as in the cylinder engines, while the crank still possesses all the properties of that in ordinary use. The principle of this engine is that of "an eccentric revolving in its own diameter." It has to overcome centres, as in the ordinary engine; the revolving motion, however, is obtained direct, instead of through the intervention of a crank. The steam-chamber is substituted for an ordinary cylinder. The eccentric, or piston, being keyed on to the shaft, a back plate is fitted into a recess in the steam-chamber, and is pressed against the piston, either by springs or by the admission of steam behind it. Thus, if any wear takes place in the periphery of the piston, the plate is intended to compensate for it. The piston is made steam-tight at both ends with rings of metal fitted with conical seatings cut upon one side so as to receive a lap-joint. The shaft is carried on vibrating rods, so as to vibrate the distance of the eccentricity of the piston. The power from the piston to the lower cranks is conveyed by means of connecting rods, which are always parallel, working in direct lines. Although the steam is admitted above and below the piston, as in ordinary engines, the valve is different, as it exhausts through the back, and is packed similarly to the ends of the piston, being worked by an eccentric lever. By the arrangement of the piston and connecting rod, the motion is direct to the main shaft; thus, unnecessary gearing is dispensed with. The small space occupied by Messrs. Shipton and Simpson's engine, and the comparatively inexpensive foundation required for it, are among some of the numerous advantages which this singularly ingenious machine possesses. It is calculated at ten-horse power, and actuates all the cotton machinery of Messrs. Parr, Curtis, and Madely, of Manchester, including their self-acting mules, two revolving frames, and three drawing frames. It also gives motion to two spinning frames, and one power loom, of Messrs. Mason and Collier, of Rochdale.

The cotton machinery and long-line flax machinery of Messrs. Higgins and Sons, of Salford, including a patent roving frame and double self-acting mule, and also their flax machinery, including a drawing-frame, a roving-frame, and a spinning-frame, are all driven by the new rotary engine of Messrs. Simpson and Shipton. These engines, which they call "patent elliptic revolving engines," are calculated at six horse-power; and, although at first putting us in mind of the Birmingham disc engine, invented by a person of the same name, yet, upon examination, are found to be entirely different in action, as the disc the present instance rotates only in one plane, whereas in the disc engine the disc rotates between two cones.

All the machinery which we have already mentioned occupying the western court of the Machinery in Motion department, is driven by the engines of Messrs. Hick, Mr. Edwards, Simpson and Shipton, and Messrs. Lloyd.

We now enter the large hall of the Machinery in Motion, which lies between the second-class Refreshment-room and the north wall of the Building; and the first steam-engine we meet with is that of Mr. Joyce, of Greenwich, which he calls a "high-pressure pendulous engine." The cylinder is suspended by trunnions from the top, and the piston gives motion to the crank, on the shaft of which are the fly-wheel and pulley. By a band from the latter motion is distributed to various pulleys and shafts, by which a variety of different machines are set and kept in motion. The engine itself is of simple construction, and does its work well; but the frame, of cast iron, is far too light, and consequently very shaky when all the motion is conveyed in connection with it. The principle discovered by Woolf, of introducing steam of a high pressure into a small cylinder, and afterwards allowing it to act expansively in a larger one, adding to its effective force by condensation, is in this engine applied in an extremely ingenious and simple manner. The cylinders are not placed before each other, as is generally done in the ordinary engine, but are bedded and jointed side by side, forming what might be termed a double cylinder, which cylinders the inventors, upon a principle entirely new in this country, invert from their usual position, and suspend them between the framing, the trunnion pipes or steam ways being placed at the end, or what in the ordinary engine would be termed the bottom of the cylinders. By these means a direct motion is applied to the crank without the intervention of cross-heads, side-rods, or parallel motion; the piston-rod being attached to the crank pin, the cylinders vibrating with a pendulous movement on their bearings or trunnions, whilst the oscillation of the cylinders works the slides by means of a bar. These engines are capable of exerting a power of 50 per cent. more than the power at which they are rated. From the simplicity of the engine, there is no risk of derangement; and the friction of the working parts is diminished. Three-fourths, whilst the consumption of fuel is less than 8 lb. per horse power per hour, and there is a saving of one half the space usually occupied by the ordinary steam-engines. Messrs. W. Joyce and Co. first commenced manufacturing these engines in 1834; since which period they have been erected in large numbers. The accompanying cuts represent a front and side elevation respectively of the engine.

The first machine actuated by Joyce's engine is for working spindles intended to supersede hand or traps, invented by Leopold Muller. It consists chiefly of a horizontal shaft having a series of vertical bevelled cog-wheels working into smaller horizontal wheels attached to the spindles.

Master's ice-making machine, which has now been in successful operation for many years, and by which are rapidly made ice for the second-class refreshment-rooms of the Great Exhibition, is the next we find at work in connexion with Joyce's engine.

The third in order is Milligan's patented power loom, made by Hodgson and Halsey, by which any number of picks may be put into a given length of work—its taking-up motion constituting the chief point of excellence.

The fourth is H. Sutcliffe's patent spinning frame of 12 spindles which make 5500 revolutions per minute. This machine is exhibited on account of its high velocity, and for the regularity in the tension or drag.

The fifth machine driven by Joyce's engine is the new power loom of

O. Chalmers, for weaving table-cloths. We observed in the loom a damask table-cloth of a rich pattern, extending when completed to 2½ yards square.

The sixth is George P. Macindoe's self-acting mule of 84 spindles, for spinning cotton-wool into yarn, with oscillating lever for taking in or putting up the carriage, as also a mode of cutting down the faller from any of the twist pulleys by centrifugal disengaging catches.

The seventh is the patented winding machine of 12 spindles, of T. Lucas Paterson; woollen, cotton, or linen yarn, from the hank are also wound upon the shuttle cop or *pern*. It is exhibited on account of the saving of waste effected, and also as producing an "improved build of cop."

The eighth is a fine worsted damask loom, made by James Bairdrow, and exhibited by Messrs. Taylor and Sons; the articles woven being all of English weave.

The ninth is Mark Smith's canvas loom, as also his fastian loom (Class 6, No. 22), three-shuttle gingham looms, and a small silk loom. The tenth is Joseph Harrison's patent power-loom.

The eleventh, Hornby and Kenworthy's patent sizing or dressing machine; also two improved power-looms, exhibited by Kenworthy, and Kenworthy and Bullough, respectively—which have not only been described, but also illustrated in our pages.

Twelfth, and finally, an old power-loom, very curious on account of its being made and in general use more than half a century ago. It is exhibited for the purpose of illustrating the vast improvements which have been effected in the power-loom during the last 60 years.

McNaught's double-cylinder condensing engine, having 4-inch cylinders and 8-inch stroke, is shown in action in connexion with a machine for cutting out wooden bobbins, thirty of which are completed in each minute.

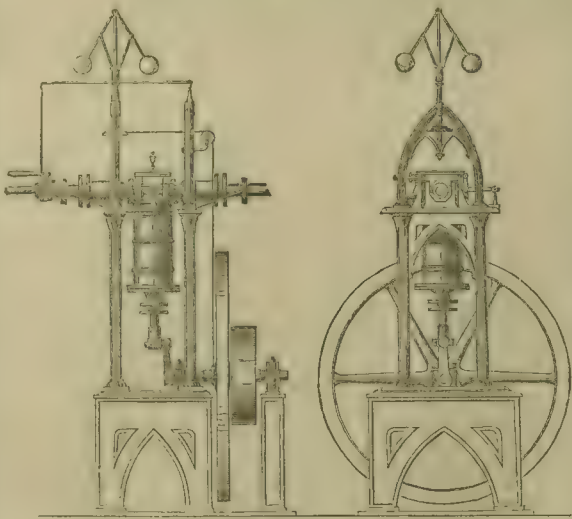
No. 24, Class 5.—Messrs. Lynch and Inglis, of Manchester, exhibit a one-horse portable engine of their own design, which works their wool-combing machinery: the cylinders is of 3½ inches diameter, with a stroke of 7 inches.

Among the numerous articles which have been admitted to the Building since the 1st of May, is a patent portable steam-pump, of W. E. Carrett, of Leeds, which is designed for lifting and forcing water in one continuous stream, at all pressures. It has a 4-inch cylinder and 7-inch stroke, and is worthy of an inspection on account of its novelty.

Messrs. W. Fairbairn and Sons supply power to the following machines by means of their vertical direct-acting steam-engine, having a 19-inch cylinder, the cylinder being chiefly inclosed within the iron pedestal, as in the case of Mr. Hick's engine. Whether for its design, simplicity, or ease of action, it may be taken as one of the best examples of steam-engines sent to the Exhibition. The machines alluded to are the worsted machinery of Messrs. B. Berry and Sons, of Bowley, near Bradford, including altogether six frames; the woollen machinery of Mr. John Mason, of Rochdale, including a self-acting mule, and a patent condenser, or endless carding engine; as also a large power-loom.

Mr. Andrew Shankie exhibits in action his improved high-pressure engine, which actuates his screw-bolting machine, and also his detail planing machine.

No. 29, Class 5.—Messrs. Hodge and Co. exhibit an oscillating direct-acting engine. The cylinder, hung in the middle, is of 6 inches diameter, with a 20-inch stroke. This engine drives the flax-dressing machinery of Mr. Hummer, of Newcastle (No. 74, Class 6); the patent power-loom (No. 46, Class 6) for weaving table-cloth and other cloths, the novelty of which consists in the introduction of a stick to beat up the web; and the brick-making machinery of Messrs. Randall and Saunders, of Bath, which has generally been seen in action day by day since the opening of the Exhibition, until within a few days, when it ceased to work, on account, we were informed, of the expenses attendant thereon. Surely a portion of the large funds at the disposal of the Commissioners might be appropriated towards keeping in action the machinery of those exhibitors who do not find it convenient to continue the daily expense. Messrs. Randall and Co.'s machine is constructed for the purpose of making rapidly bricks for various purposes, according to their patent form, as well as every description of tiles and piping. The clay being properly pugged, by means of two screws working together, is made to pass through a die at one end of a cylinder, through which it is forced by considerable pressure. The bricks thus formed are found to be of uniform texture, and size, as the continuous band of clay is accu-



JOYCE'S STEAM-ENGINE.

rately cut into the required length by a continuous cutter. With one-horse power, added to the labour of two men and a boy, not fewer than one thousand bricks are made by this machine in one hour.

The manufacturing tools of Mr. Whitworth are kept in motion by one of Penn's patent trunk engines, having a hollow piston working vertically (cylinder 8 inches diameter, stroke 9 inches), communicating motion in the usual way by means of a crank to a fly-wheel and pulley of equal diameter, one on either side of the circular iron frame on which the machine is fixed. This engine is calculated at five horse power. The machines of Mr. Whitworth are—the patent duplex wheel turning lathe, the self-acting nut-shaping machine, with double cutters, to square two objects at the same time; a self-acting vertical planing machine; a self-acting planing machine; a patent crank planing machine; a radial drilling machine; a patent slotting machine, of 6-inch stroke, to admit articles of two feet diameter; and a similar machine, with a 12-inch stroke, to admit articles of 3 feet diameter.

The well-known Butterley Iron Company exhibit an oscillating engine (No. 34, Class 5), the cylinder being suspended in the middle by hollow trunnions, through which the steam is admitted on one side and carried off on the other; the cylinder is 9 inches in diameter, and the stroke 18 inches in length. The attendant reports its power at 8 horses. The flax machinery of Messrs. Lawson is driven by the Butterley engine, including a silver roving frame, a carding engine, two heckling machines, one fine spinning frame, a twisting frame, a fine spreading frame, and a first and second drawing frame.

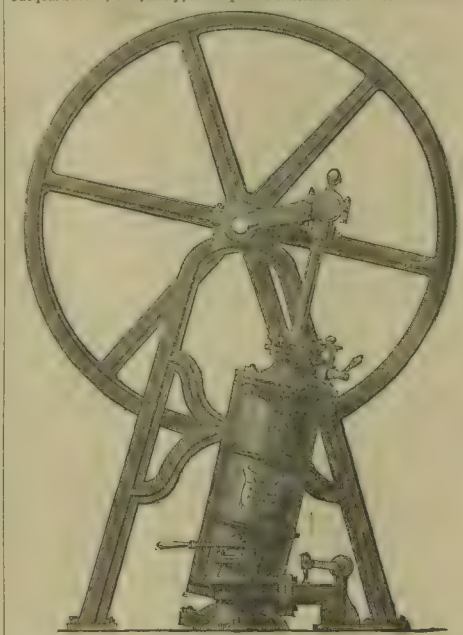
The same engine also actuates Parker's patent mathematical power-loom for weaving sail-cloth (No. 77, Class 6), and also his perming machine, often spinners.

No. 37, Class 5.—Evans's high pressure oscillating engine—the cylinder of which is hung at bottom, on transverse hollow trunnions—is calculated at six-horse power. It drives Craxhall's vertical rope-making machine, by which the whole process of rope-making is entirely completed; and it is believed to be the only machine of the kind in the kingdom. Huddart's exquisite rope-making machine—fully described in the proceedings of the Institution of Civil Engineers—having lately been taken to pieces, and sold to different purchasers.

No. 45, Class 8.—Mr. E. Lloyd exhibits his patent double cylinder

expansive engine, which gives motion to C. Schule's patent revolving mill. The cylinder of this engine is of 3½ inches diameter, with a stroke of 8 inches.

Pope's oscillating engine, of four-horse power, already illustrated and described in the Illustrated London News, gives motion to the throwing, winding, doubling, and reeling machines of Mr. Joseph Davenport; to the throwing mill of Mr. Frost; to Barlow's improved Jacquard loom; and, lastly, to the patent shuttleless loom of Mr. Reed.



STEAM-ENGINE.—BY EVANS.

Maudslay's double cylinder direct-acting engine drives their improved coning press, the cylinders of which are of 3 inches diameter, with a stroke of 14 inches, the power being calculated at six-horses. It also gives motion to the following beautifully executed models:—1st. A pair of direct-acting double cylinder marine steam-engines, patented by Joseph Maudslay and Joshua Field, fitted with paddle-wheels and improved feathering floats. On this plan Messrs. Maudslay and Co. had constructed machinery for marine purposes since the patent was granted to them of an aggregate power of 19,000 horses, and some of them of 500-horse individual power. 2nd. A pair of direct-acting marine steam-engines, with oscillating cylinders, patented by Joseph Maudslay, on which plan and construction this well-known firm have furnished engines of the aggregate power of 2100 horses. 3rd. A pair of direct-acting double piston-rod marine steam-engines, peculiarly adapted for the shallow rivers of India and other parts of the world; patented by Joseph Maudslay and Joshua Field for the India and Africa, and for the throne, of the aggregate power of 345 horses. 4th. A pair of marine slide lever beam-engines, on which plan Messrs. Maudslay and Co. have constructed 100 pairs, of the aggregate power of 11,355 horses. 5th. A pair of direct-acting annular cylinder marine steam-engines, patented by Joseph Maudslay, fitted with paddle-wheels and improved feathering floats. Engines on this principle have been fitted to several of the fleetest packets in the Channel; and they have also constructed some twenty-three pairs of similar construction, of the aggregate power of 2,550 horses. 6th, and lastly, a pair of direct-acting marine steam-engines for driving a screw propeller, so constructed as to occur by little space; and when fixed in the vessel to be entirely below the water-line. Thus we find that this celebrated firm have constructed marine engines on their various plans amounting in the aggregate to a power of 34,155 horses.

The great engine manufacturing firm of Messrs. Bryan Donkin and Co. having exhibited themselves of the applicability of the celebrated engine, exhibit one calculated at six-horse power on their improved construction, which gives motion to their disc water-mill, and also to their disc pump: the engine is of large size, having a disc of 17 inches diameter, and the continued leakage of steam, which was one of the great objections to this class of engines when first brought out, appears to have been entirely remedied. It also actuates the circular planing machine, drilling machine, and slide lathe of Messrs. Smith and Co., of Leeds; and likewise the centrifugal sugar-drying machine of Messrs. Roth and Co. As this disc engine gave rise to a strong controversy among engineers when it was first brought out, and, indeed, for some years after, it may be as well to advert briefly to the history of its appearance in the mechanical world. About twelve years ago, we were called in to examine and report on two engines of this class, one of which was at Birmingham, and the other at Wednesbury, and a third at Birmingham. The result of our examination and experiments was, that in point of economy of first cost, and foundation, and also of space, it was unquestionable; but that in point of consumption of fuel there was no thing gained by its use: the paucity and simplicity of its parts were great recommendations, but still leakage was found to be a great obstacle; and Mr. Davies, a very ingenious mechanic and original inventor, made several improvements in the engine of this construction subsequently put up. It was as pointed mechanical manager of a company formed to build these engines on an extensive scale, of which company Mr. Rufford, the celebrated banker, who has lately figured away in the papers, was the chairman, and it is believed that until very lately he still retained a large share in the property of the Birmingham Disc Engine Company. At the first meeting of the British Association at Birmingham, a paper was read on the subject of this disc engine, the use of which was strongly opposed by some engineers. The late Mr. Stephenson, Mr. Robert Stephenson, Mr. Charles Fox, and Mr. Josiah Parkes, all visited the British Alkali Works, for the purpose of examining this novelty in the engineering world. Mr. Bishop, who was formerly connected with the Birmingham and Gloucester Railway Company, paid great attention to the improvement of the disc engine; and some time since erected one of his improved disc engines at the Great Western office, in Printing-house-square, which still actuates the vertical printing-press of Mr. Applethorpe, by which eight copies of one side of the paper are thrown off at each revolution of the vertical cylinder.

From the time of Watt until the present day a good rotary engine has been considered a desideratum; and, perhaps, upon the whole, the improved engines exhibited by Messrs. Donkin and Co., and Mr. Bishop, come nearest to the requirements of engines in obtaining direct circular motion.

Messrs. Clayton, Shuttleworth and Co., of Lincoln, exhibit their six-horse oscillating engine, which gives motion to Appold's centrifugal pump, which is also to Messrs. Donkin's machinery; and, immediately adjoining Appold's machinery, is Bessemer's horizontal patent centrifugal disc pump. Mr. Bessemer is well known in connexion with many important practical inventions of the present day. The general principle of Mr. Bessemer's pump is the same as that of Mr. Appold's; the former of which, however, is fixed horizontally, while the latter works vertically. Mr. Bessemer's centrifugal pump consists of an iron case composed of two parts, which are connected together by a flange, the whole resting on a foundation of brickwork and masonry. One compartment contains the disc, while in the other is fixed the wheel-work by which the disc is put in motion. A suction-pipe attached to one of the case communicates with the pump to be raised. The disc, composed of two circular metallic plates, connected together by several intermediate radial leaves or fans, is fixed on a shaft, working in proper brass bushes. By means of elastic washers under the heads of the screw-picks, the escape of water is prevented. Motion is given to the vertical shaft by means of a horizontal oscillating engine of 10-inch cylinder, and 21-inch stroke, calculated at six horses' power. The quantity of water

raised in a minute to a height of four feet is very large, as it is represented by a weight equal to twenty tons.

No. 310, Class 6.—R. Bradley and Co. exhibit an interesting model of a colliery in action, which is worked by a pair of small cylinders placed horizontally.

No. 418, Class 6.—Messrs. Robinson and Co. exhibit the largest and most powerful of the steam-engines in motion, being an oscillating engine, with the cylinder hung by trunnions in the middle, having a diameter of 18 inches, and stroke of 42 inches in length, calculated at 24 horses, which drives their large sugar-cane crushing machinery by means of motion communicated thereto by a series of cog-wheels. The cane is first placed in a proper inclined receptacle, and passes under and between large rollers of iron, by which the juice is expressed, falling into a proper reservoir, from which it is conveyed in suitable conducting pipes, to be collected for use; the residue of the cane is carried away by a series of laths connected with endless chains, also worked by the machinery attached to the engine.

Mr. Crosskill, the famous agricultural implement maker, of Beverley, exhibits his oscillating engine, the cylinder of which is also hung in the middle: it is of 7 inches diameter, with a stroke of 11½ inches. This engine not only gives motion to various mills contributed by Mr. Crosskill, but also actuates the tenoning, planing, and mortising machines of Mr. Furness, which were partly brought into requisition in the construction of the Crystal Palace, and which have already been described and represented pictorially in the pages of this Journal. It also gives motion to Mr. Dakin's coffee-roasting apparatus.

It is generally allowed that the French know full well how to prepare coffee so as to make it quite palatable; but in our country we are only just learning the art of roasting coffee in a scientific manner. The desiccating process of Messrs. Davison and Symington is perhaps the most perfect mode of accomplishing this desirable object; but it is only now that we are fortunate enough to meet with coffee prepared according to their system, which consists in placing the berries in revolving cylinders, and subjecting the contents to an exposure for a given time to hot currents of air until all the berries are uniformly roasted: the currents of highly-heated air are driven by a fan at considerable velocity. The flavour of moderately good coffee, prepared by Davison and Symington's plan, is exceedingly uniform and delicate. Mr. Dakin's method has also made some stir in the world on account of the cylinders in which his roasting is carried on being either of silver or an alloy of that metal; and his apparatus is shown in motion among the Machinery in Motion, though, of course, the roasting is not permitted to be carried on there. Instead of exposing the cylinders in which the coffee is placed to the direct action of the fire, an outer cylinder is provided, the whole being placed within an oven. This cylinder, as has been mentioned, is made of an alloy of silver in order to prevent the injurious effects produced on the flavour of the berry by the use of iron. In the cylinder are proper grooves, to suit a long slide, by the removal of which the coffee is placed in the cylinder. When in action, on account of the close fitting of the slide, the cylinder is rendered nearly air-tight. The end-plates of the cylinder are provided with bosses, placed centrally, to which the shaft is secured. The shaft is made hollow, for the purpose of receiving a long taper, by which a portion of coffee may be removed from the cylinder while the whole is in motion, the shaft having a slit in it for the above purpose. The cylinder can be moved in and out of the oven at pleasure. Mr. Dakin attaches great importance to the particular temperature at which the hot air is admitted to the cylinder.

Middleton's vertical cylinder direct-acting engine, with cross-head and double crank, giving motion to Applegath's vertical printing machine, by which the Exhibition Supplements of the ILLUSTRATED LONDON NEWS are printed weekly. Applegath's machine is of first-rate workmanship, and was constructed by Mr. Middleton, who supplies the power to work it. The same engine gives motion, when required, to a new folding-machine, which, by permission of the proprietor and exhibitor, Mr. Ingram, stands within the wooden dwarf inclosure of the vertical printing-press.

McClure and Co.'s lithographic press, on the other side of the passage, on the eastern side of the inclosure, as above, is also actuated by Mr. Middleton's engine.

Contiguous to McClure's lithographic press, we find Messrs. Hopkinson and Cope's 2½-horse engine (5-inch cylinder, 14-inch stroke), with cross-head on the old plan, working the Scandinavian horizontal printing-press exhibited by Mr. Hopkinson, and also the perfecting machines of Mr. Napier.

Near to the above are the centrifugal hydro-extracting or drying machines of Messrs. Manlove and Co., which are driven by a two-horse vertical cylinder engine in connexion with bevelled cog-wheels, working into smaller wheels placed horizontally, and which give motion to two vertical spindles, on the bottom of each of which is a rigger, from which motion is communicated to the pair of revolving copper vessels, in which clothes, sugar, and other articles are rapidly dried by the centrifugal action of the machine. The process of drying sugar by this machine is merely to place the raw material in segmental cases of gauze wire into copper vessels, and subject the whole to centrifugal action, when the treacle is rapidly extracted, and most beautiful crystallised sugar is left behind, samples of which may be seen, and perhaps tasted, by those curious in such matters. At Bristol there are as many as forty machines of similar pattern in one establishment.

No. 43, Class 5.—Messrs. Bunnell and Co., well known for their metallic outside shutters, exhibit their patent concentric reciprocating engine, with double action, suited either for high or low pressure steam, which is worked expansively. This engine is without the ordinary gearing or tappets, having a fly-wheel on one side and large pulley on the other, according to the plan so generally adopted by the exhibitors of machines at the Great Exhibition; the piston (6½ inches by 3 inches) works in a semicircular passage, having a 12-inch stroke. This machine is calculated as of four-horse power.

Messrs. Barrett, Exall, and Andrews exhibit, in connexion with their biscuit-making machinery (described in the ILLUSTRATED LONDON NEWS of August 2), a small Brunel engine of 1½-horse power. This engine also gives motion to a model of their patent safety horse-works.

No. 41, Class 5.—Nasmyth and Co. exhibit their improved engine, working the piston vertically, and having fly and pulley as in common use, by which motion is communicated to the large printing-press of Messrs. Napier and Sons. The cylinder of Nasmyth's engine is of 7 inches diameter with a stroke of 9 inches.

Near to the above, Messrs. Ronnic exhibit, in connexion with Bishop's improved disc engine—to which we have already alluded while describing Messrs. Donkin's contribution—a screw propeller, showing how very suitable this kind of engine is as an auxiliary power in sailing-vessels.

The envelope-folding machine of Messrs. Waterlow, which we have already described, is also actuated by Bishop's disc engine.

No. 49, Class 5.—Messrs. Collinge and Co. exhibit, on account of its simplicity, their portable direct-acting high-pressure engine, of 5-horse power, already described in the ILLUSTRATED LONDON NEWS, and standing near to their sugar-cane crushing machine and improved screw-jacks.

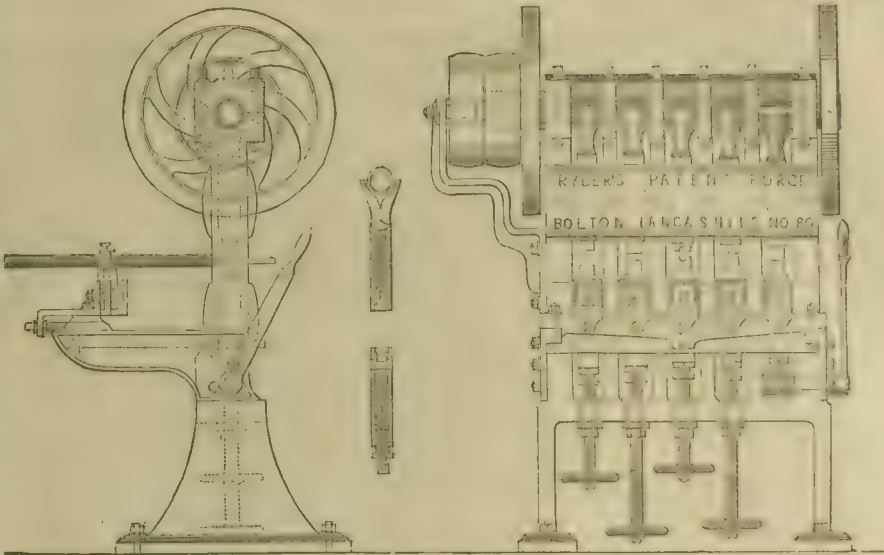
In connexion with his hydraulic crane, Mr. W. G. Armstrong exhibits a small engine with horizontal cylinder of about 11 inches diameter, and 5-inch stroke, which is estimated at one-third of a horse power.

No. 11, Class 5.—Messrs. Hawthorn, celebrated as the makers of locomotive engines, have also, of late years, turned their attention to the manufacture of fixed engines, and we find an oscillating high-pressure engine of their construction without slide valves, eccentric, or gearing—giving motion to the pulverising sugar machinery of M. Hermann, of Paris; which, with the machines of M. Plaud, placed in close proximity thereto, are the only machines from France exhibited in motion. Messrs. Hawthorn's engine has a cylinder of 2½ inches diameter, and a stroke of 8 inches in length.

M. Plaud, of Paris, exhibits a small direct-acting engine of five-horse power, to work his machinery for planing wool. It will be easily found, as being the first engine in action, starting from the east end of the large court occupied by the Machinery in Motion, which certainly appears to attract as large a number of visitors on each exhibition-day as any department of the great international display.

RYDER'S PATENT FORGING MACHINE.

The forging machine of Mr. Ryder, of Bolton, is placed a little to the west of Applegath's pump, and when in action attracts its share of wondering visitors. In consequence of fire not being permitted within the "woven walls" of the Palace of Industry, this machine is not shown to full advantage; nevertheless, by the use of lead, instead of iron and steel, the materials usually brought into subjection by its mighty power, the use of the machine is demonstrated. In a case contiguous to the machine, various kinds of rollers are exhibited by Mr. Ryder for different purposes, such as mangle and throtle spindles for cotton machinery, screw



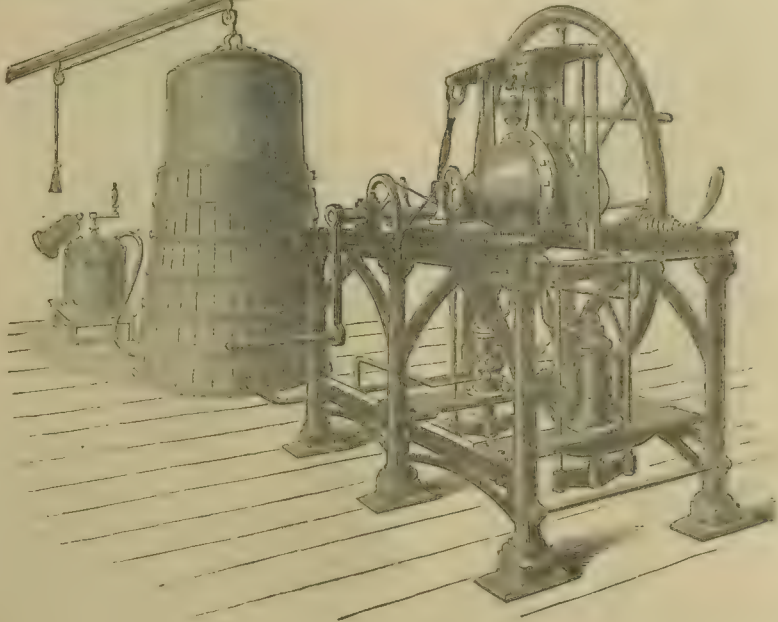
RYDER'S PATENT FORGING MACHINE.

bolts, and also round, half-round, square, flat, and "three-square" files respectively, all of which have been formed by similar machines. That shown in the Exhibition is worked by an oscillating engine having a 7-inch cylinder and 9-inch stroke: a horizontal shaft, which is caused to rotate by means of the crank, carries on it a metal pulley of 16 inches diameter, from which a band passes, when in ordinary use, to drive a fan of 17 inches diameter, but which, for the reason already stated, is not required to be used in the present instance. The fly-wheel is on the same shaft, a band from which passes to a 12-inch driving-pulley, running on a second shaft, by which five eccentrics are worked, and by which as many hammers are caused to fall at proper intervals, each of which is again lifted up by a spring; this operation is repeated 700 times

in a minute. Under each hammer is an anvil, furnished with flat and other dies, on which the steel or iron to be operated on is placed—being kept in its proper position by a rest in front of each. The dies may be raised or lowered at pleasure, by means of vertical screws turned by circular open handles. The whole is mounted in a strong frame, and by means of bolts passing through the iron base plate is firmly secured to the joists of the floor.

SODA-WATER MACHINE. TYLER AND CO.

There are several soda-water machines exhibited in the Crystal Palace, many of them kept in active operation, and popping away right and left as they supply the demands of thirsty votaries. The principal



SODA-WATER MACHINE.—BY TYLER.

of all is generally the same—that of forcing a certain amount of carbonic acid gas, in combination with water, into strong glass bottles,

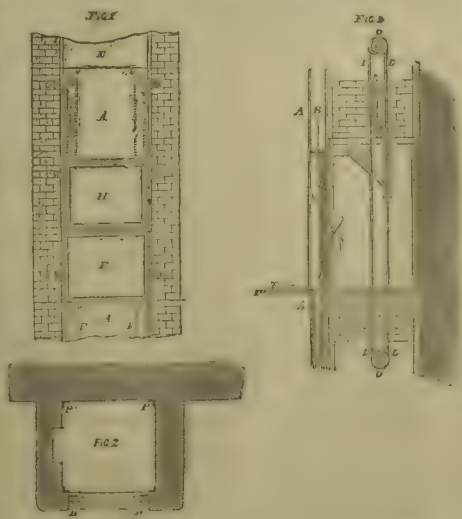
which are then corked and securely wired. Sometimes the water is additionally medicated by the introduction of a certain quantity of alkaline matter previous to the impregnation with carbonic acid gas; but this is not always the case. The machine which we have engraved is that of Tyler, Hayward, and Co., which is adapted for two bottlers, and, acting on the continuous principle, is capable of making 300 dozen bottles a day. The condenser, seen in the centre of the upper frame, is of gun-metal, tinned or silvered inside; and, being separated by a partition in the middle, acts as two condensers.

BELLHOUSE'S FIRE-PROOF DOORS FOR WAREHOUSE HOISTS.

The recent fires in Manchester—especially those of George-street and York-street, and more particularly that of Westhead's warehouse, in Piccadilly—have caused every feasible scheme for the prevention of this disastrous cause of destruction in so vast a town, whose buildings are chiefly filled with stores of valuable produce, to be regarded with attention. In the manufacturing districts, generally, where the warehouses and factories are a considerable height, consisting of many stories, the ordinary staircase is generally superseded by the "hoist" or "lift," which is precisely the same thing as the well-hole of an ordinary staircase; previous to the stairs being fixed therein, but with the addition of the hoisting or lifting apparatus. Mr. Bellhouse, who is an extensive builder in Manchester, has particularly turned his attention to a mode of preventing such well-holes from becoming, in cases of fire, large ventilating shafts, which naturally cause the fires to rage with greater fury. The means which he has adopted for this purpose, and a model of which will be found in the machinery department of the Exhibition (Class 3, No. 416 in the official catalogue), consists of iron doors sliding vertically in grooved frames of the same material, so that the communication between the different floors of the building and the well-hole may be entirely shut off in cases of fire.

The illustrations consist of an elevation (Fig. 1), plan (Fig. 2), and a section (Fig. 3).

Hollow iron bricks (c c) are built into the brick walls of the well-hole as the building progresses; n n are side jambs of cast-iron, having slides for the doors, the jambs being bolted to the hollow bricks; A A, stationary plates of cast iron bolted to the side jambs, which plates form the lintel in the case of one-way doors and the sill of the next; r r and z z represent two sliding doors, the former opening upwards, and the latter downwards. The doors are moved either upwards or downwards by means of chains (r r), which are attached to the upper angles of the door



BELLHOUSE'S FIRE-PROOF DOORS FOR WAREHOUSE HOISTS.

(E & F); the chains pass downwards, in grooves formed in the sides of the upper door (M), and over pulleys (O & U), and are fastened to the upper side of the door N. Hence, in whatever direction the door H is moved, the other door (L) must necessarily have the reverse movement. The weight of the doors is so adjusted, that the excess of weight in the door H causes them both to close when left to themselves.

The slides or grooves in which the doors move are so arranged as to prevent them coming into contact with each other. In order to keep the doors open while the cradle is being loaded or unloaded, an apparatus of simple construction is attached to its interior. It is a bolt sliding to the left and right; it is a link connecting the bolt S with a point which slides perpendicularly in a groove as shown. If this point be moved upwards from the position shown, the bolt will be moved towards the left; and if the cradle is stopped at any particular place, and the doors open, the bolt will keep them in that position; but as soon as the cradle has to be removed, the bolt being withdrawn for this purpose, the balanced doors H and L are allowed to close. Let us take a case: the cradle has been left opposite to a door at the top of the well-hole, and a person at the bottom wishes to liberate the hoist, having first given notice by "Whishaw's telegraph," or speaking telegraph, of his intention; he withdraws the bolt S, by means of the rope passing over the pulleys O & U, at the top and bottom of the well-hole, and at the same time ensures the closing of the doors as already mentioned. By these self-closing arrangements, none of the apertures communicating between the apartments and well-hole need be left



FIRE-PLACE, BY MR. JOHN THOMAS. STOVE, BY MESSRS. FEETHAM.

open, and the sliding doors are themselves fire-proof.

COLLINGS'S SCREW JACKS.

Near to the sugar-cane crushing machine, as above described, are two screw lifting jacks by the same firm; the one consisting of a powerful screw turned in its nut by means of a lever, and capable of raising a load equal to from ten to twelve tons, while in the other a greater facility of motion is obtained by means of the introduction of a worm and wheel, instead of the ordinary lever, which in some cases cannot readily be applied. In raising sunken buildings generally, these jacks are especially useful.

FIREPLACE. BY J. THOMAS

This is altogether a very classical production, in marble, the carving of the figures being exceedingly creditable as works of art. The grate is handsome and serviceable.

TWO PANELS IN CANNABIC. ALBANO.

We introduced Mr. Albano's cannabio decorations to our readers in our Supplement of the 23d August. The two specimens which we now engrave—a panel of dead game, and a panel of fish, &c.—spirited productions in themselves, will illustrate the variety of designs to which this new material has been applied.

EARTHENWARE FOUNTAIN. BY RIDGWAY AND CO.

Ridgway and Co., of Newcastle-under-Lyme, besides their general assortment of tea and coffee services in English porcelain, exhibit various earthenware fountains for gardens and conservatories, very pleasing productions, of which we present a specimen.



PANEL, FISH, &c., IN CANNABIC.—BY ALBANO.



EARTHENWARE FOUNTAIN.—BY MESSRS. RIDGWAY AND CO.



PANEL, DEAD GAME, IN CANNABIC.—BY ALBANO.

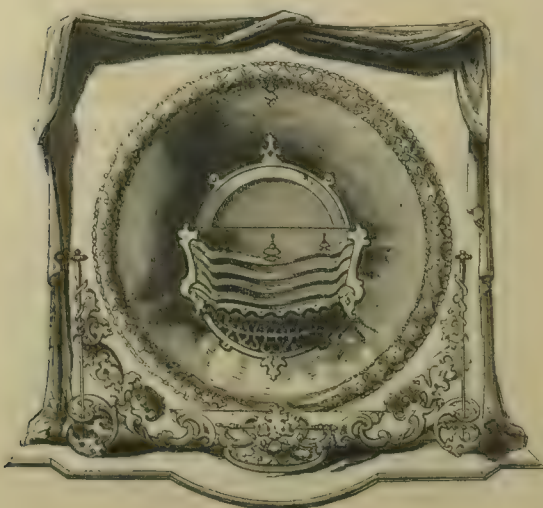
STOVE. BY FEETHAM.

Feetham, of Clifford-street, has several choice and curious works in the Elizabethan and mediæval styles; and not the least so is this very hand-

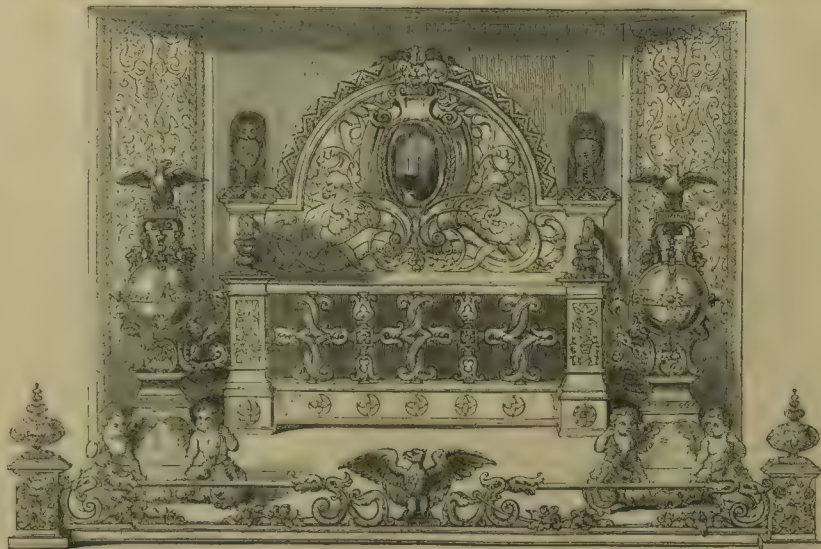
some stove, which is all of admirable workmanship, highly polished, and enriched with or moult. It is altogether a very carefully studied and creditable production.

STOVE. BY JOHNSON AND CO., OF SHEFFIELD.

A very elegant production, after the new semi-spherical fashion which has peculiar properties of throwing out heat.



STOVE.—BY JOHNSON AND CO., SHEFFIELD.



STOVE.—BY FEETHAM, CLIFFORD-STREET.

CHURCH MEDALS. BY J. WIENER.

M. Wiener, of Brussels, exhibits a collection of very beautiful medals, representing the principal cathedrals and other public buildings in Belgium. In the case of religious edifices, the exterior is given on the obverse, and the interior on the reverse of the medal; in the case of



CHURCH MEDAL.—BY J. WIENER.

other edifices, the reverse is occupied with a ground-plan of the building. We have engraved several of these little memorials.

The church of Notre Dame at Tongres, is a very ancient foundation, which was devastated by the Huns, and rebuilt in the time of Charlemagne. The church of St. Martin's, at Ypres, was founded early in the eleventh century. Both are very fine and interesting relics of antiquity. The Bishop's Palace, at Liege, is a most remarkable building of the middle ages, having been built by Cardinal Bishop Erard de la Marck, in 1533. It is now the Palais de Justice. The view given is of the interior court, the stunted columns of which have some resemblance to those of the Ducal Palace at



CHURCH MEDAL.—BY J. WIENER.

Venice. They are the more curious, from the fact that each pillar is carved with a pattern different from all the rest.

CLARET-JUG, &c. BY REID, OF NEW CASTLE.

The claret-jug and bread-basket exhibited by Reid, of Newcastle, are in every respect highly creditable specimens of silver work, being elegantly formed, and richly chased and engraved.

ASTRONOMICAL TELESCOPE. BY A. ROSS.

This very fine telescope occupies a conspicuous position in the centre avenue of the Western Nave. The tube is 20 feet in length, and



CHURCH MEDAL.—BY WIENER.



CLARET JUG, &c.—BY REID, OF NEWCASTLE.



TELESCOPE.—BY ALEXANDER ROSS.

the object glass 11 inches in diameter. It is mounted on a stand, with equatorial movements and complete adjustment.

TABLE. BY LEISTLER.

This very handsome table, we think, com-



CHURCH MEDAL.—BY J. WIENER.

pletes our illustrations of Leistler's furniture in the Austrian department. It is of a character with the other works, massive, yet elegant; bold and fanciful in device, and masterly in the workmanship.

BEDSTEAD. BY DOWBIGGIN.

The carved walnut-wood bedstead, with cornice, displayed by Messrs. Dowbiggin, must be classed amongst the most elegant and successful productions of its kind in the Exhibition. The carving is rich and elaborate in design

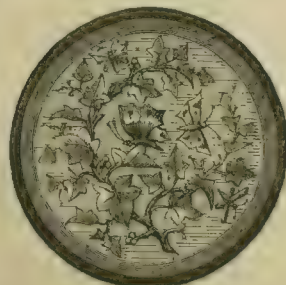


CHURCH MEDAL.—BY J. WIENER.

without being obtrusive in the treatment, and the execution highly finished.

ORNAMENTAL SLATE TABLE-TOP. BY MAGNUS.

The various manufactures in slate, of which specimens are exhibited by Magnus, of Pimlico, are very beautiful in themselves, and are important as offering a new description of decoration for domestic purposes, which may be adopted with advantage. The enamelled slates represent various marbles inlaid after Florentine mosaic and other patterns; and the durability of the material, combined with the high polish it is capable of receiving, is a consideration very much in its favour. We engrave one specimen, an ornamental table-top.



ORNAMENTAL SLATE TABLE-TOP.—BY MAGNUS.

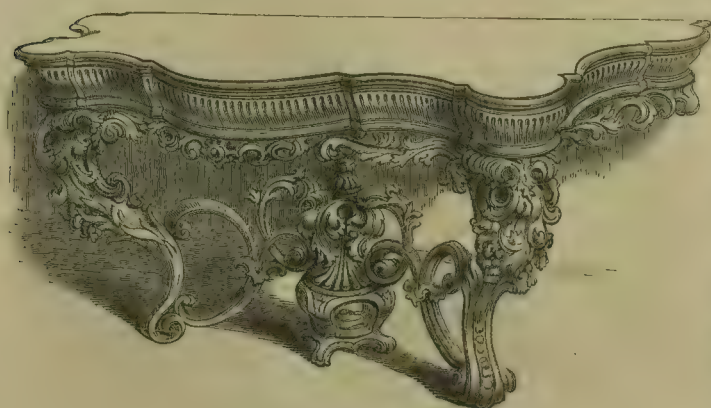


TABLE.—BY LEISTLER.



END OF BEDSTEAD.—BY MESSRS. DOWBIGGIN.

(CLASS 16. NORTH SIDE, WEST NAVE, NEXT TO FURS.)

Hicks, of Edward-street, Portman-square, has (84) a handsome saddle, with an "elastic support for the left thigh," provisionally registered. This may be useful to very stout ladies. The contrivances for riding on the off as well as near side may be useful in long marches in India or Australia and for deformed ladies, but are not often required. The same may be said of the bolts for allowing the near crutch to fall down, and save a lady the trouble of lifting her leg and habit over it in dismounting.

and Bennett have sent hunting-cap of the same material as silk hats but, as they are neither numbered nor classified, we cannot say where they will be found. We are decidedly of opinion that the hat reform must take the hunting-cap as the foundation, because it has certain undoubted advantages. It sits firmly on the head, and saves the eyes from

Every intelligent reader is aware of the peculiar feelings and jealous exclusiveness which have hitherto belonged to the Turkish Government and Mahometan people. Next to China, Japan, and the two or three other minor states in the East, the Turk has entertained the most determined and obstinate policy of isolation. A simple portrait was at one time prohibited by Edict, and Gazours and their ways were spit upon and held in abomination. But the Crystal Palace has helped to do away with these prejudices and moderate this hostility. Will not the reader be astonished to learn that the Turkish Government have founded a School of Engraving and Lithography in Constantinople? The *Taqqat Yigirmi*, or "Obituary Gazette," has published the statutes and rules of this Academy, preface by an exposition of the reasons for creating it altogether astonishing when we reflect upon the actual condition of the Empire, only twenty or ten years ago. The Sultan and his ministers and advisers have not only patronised the school, but have themselves laboured and toiled throughout the land, possessors even of ignorance, and insist upon the blessings of civilisation, and increase of power among the people. "People," a phrase new to this date unknown to or detested by the diffusion of enlightened principles and increasing information. The preface, written in a simple and unassuming style, and in the requisite style, contains, in a convincing style, that the Mussulman race will shine with *velut celt* in the republic (*douline*) of human intelligence. It boasts of glorious monuments and memorials, but confesses that during a long period the Turkish authors have not done so in their ample illustrations of literature and eloquence. Whilst poetry and the sciences have been neglected, the arts of peace and war have not advanced, an epoch when science, properly understood, has taken such giant steps and opened so vast a career of activity to the soul of man, ever seeking

* Carlsker is the President of the High Court of Justice.
† Since promoted to be an Under-Secretary of State for Foreign Affairs.

Aug. 13, 1864.



GROUP OF JEWELS. BY BOLIN, ST. PETERSBURGH



JEWELLED FIGURE OF BRITANNIA.—BY S. H. AND D. GASS

This brooch is of very elegant design, in the cinque-cento style. Under the portico of a Gothic arch, the figure of Britannia, holding with her right hand a trident, and her left resting on a rudder, stands on a shell, emblematical of her sovereignty o'er the seas. Beneath the shell is a winged dragon, representing the evil spirit of anarchy being expelled from peaceful Britain. The figure of Britannia is composed of upwards of 400 small brilliants, of old English cut, of the remarkable size of 250 to thecarat; the comb of the helmet and rudder are set with small rubies; the two pieces on either side of the figure are cut from a single piece of carbuncle. The remainder of the brooch, with the dragon, is partly enamelled, and partly set with brilliants. The whole contains nearly 1000 stones, and the workmanship is of the most admirable character.

GROUP OF JEWELS. BOLIN AND AIN.

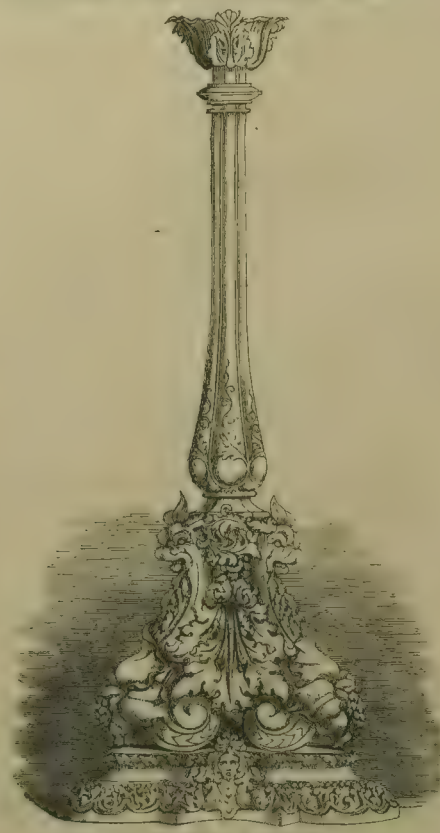
The group of jewels displayed by Messrs. Bolin and Ain, of St. Petersburg, and which we have engraved, is justly an object of general admiration, both with artists in this line, and the general public. The principal piece is a diadem, containing 1800 brilliants, weighing 250 carats, and 1750 rose diamonds, in all 8500 diamonds, 11 opals, and 87 rubies. The diamonds are all of the first water, the opals some of the most beautiful we have ever beheld—the large one in the centre being, perhaps, remarkable for its rich and varying hues; the rubies are all well matched in colour, a matter very difficult to attain with this stone; the workmanship is of a high order; there is no silver employed in the mounting, all the stones being set *en griffe*. This, though a distinction which perhaps only a working jeweller will understand, deserves to be mentioned. The value fixed upon this diadem is £4800.

CANDELABRA IN THE RUSSIAN DEPARTMENT.

In a recent Supplement we gave Engravings of the magnificent malachite doors and vases in the Russian court; the candelabra, of varied forms, are equally objects of admiration in this department. They exhibit a splendour of material, bronze gilt, a *grandiose* character of design, and a masterly finish, which one might almost pronounce it to be impossible to excel. The largest one, by Chopin, of St. Petersburg, which stands about 15 feet high, and is intended for 81 candles and four candle lamps, is valued in the Catalogue at 2633 6s. 8d.



GROUP OF RUSSIAN CANDELABRA.



CANDELABRUM.—BY WORRALL.

A very creditable design for a candelabrum, very effectively carried out.

EXHIBITION SUPPLEMENT TO THE ILLUSTRATED LONDON NEWS

VOL. XIX.]

FOR THE WEEK ENDING SATURDAY, SEPTEMBER 6, 1851.

[GRATIS.]

THE GREAT EXHIBITION.

In order to clear away some of the mass of Engravings which our Artists have made of objects in the Great Exhibition, we this week present our readers with an extra Supplemental Sheet, which is little else than a picture gallery of industrial products. The objects embrace almost every variety of manufacture, furniture, plate, porcelain, grates, cutlery, and other hardware, house decorations, lace, damasks, carpetings, life-preserving apparatus, &c., besides some few specimens of sculpture and *certis*. We shall notice some of the principal groups here, reserving a few occasional lines for individual subjects in the course of the subsequent pages.

In SCULPTURE we have first to remark upon Mr. E. B. Stephens' group of "Satan Vanquished by St. Michael." This composition which stands on the left hand in the South Transept, is not without merit, though it certainly does not attain that high poetic character which we look for in works of this class. The subject is severely treated; the Archangel stands erect, without any attempt at attitudinising, whilst the enemy of man, whom he has just overthrown, crouches in the dust beneath his feet. There is a total absence of human passion in the expression of the face; a point in strict accordance perhaps with the heavenly nature of the personage represented, but which, on the other hand, would impose upon the artist the necessity of realising the supernatural dignity attaching to him—a task in which he has not been successful. A word with regard to accessorial details. It is certainly recorded that the Archangel brought down a chain

from heaven to bind the serpent; and in a work of sculpture commemorative of the event, some reference might properly be made to it, as being by no means unimportant: but, at the same time, we could have wished that the said chain had not been made quite so much of, and in such hard angular outline as Mr. Stephens has employed, that it had been at most faintly indicated as encompassing the prostrate evil spirit, and not held up in triumph, in the hand of the Archangel. All such efforts at perfectionising petty details are unworthy of art, and betray a want of confidence in its higher resources.

Geest's group of the "Massacre of the Innocents" is treated as a religious allegory, rather than as an historical event, and is of a class of art better adapted for an altar-piece than a public exhibition-room.

As a *caprice* of art, of which the "Fine Art Court" is not a little proud, we must pay our respects to Luke Limner's "Shakespeare's Shield," or rather table-top, for to that useful purpose is it destined. The centre is an illustration of "All the world's a stage," over which mankind is passing from infancy to old age. In the original, the back scene is graduated from light into darkness, whilst through a crevice is seen a glimpse of celestial bliss. Folly prompts the ways of the world, whilst good and evil genius play. The centre is surrounded by a border of roses and thorns, and the seven stages are divided by the tree of life, in various stages, from the germ, bursting the ground, to the withered trunk, all but extinct; and crowned by hour-glasses, through which the sand runs out.

We have several specimens of lace, both of foreign and British manufacture. Of the former, Brussels maintains its old position of superiority; but that of Switzerland is very beautiful, and the manufacture is now becoming important there, employing a great number of hands. The embroidered window-curtain from Switzerland is extremely elegant. The original is suspended from the pillar, fimm-

diately in front on entering the Swiss department. It contains a panoramic view of a Swiss village. This, and other contributions of like character, have been sent in by J. T. Sutter.

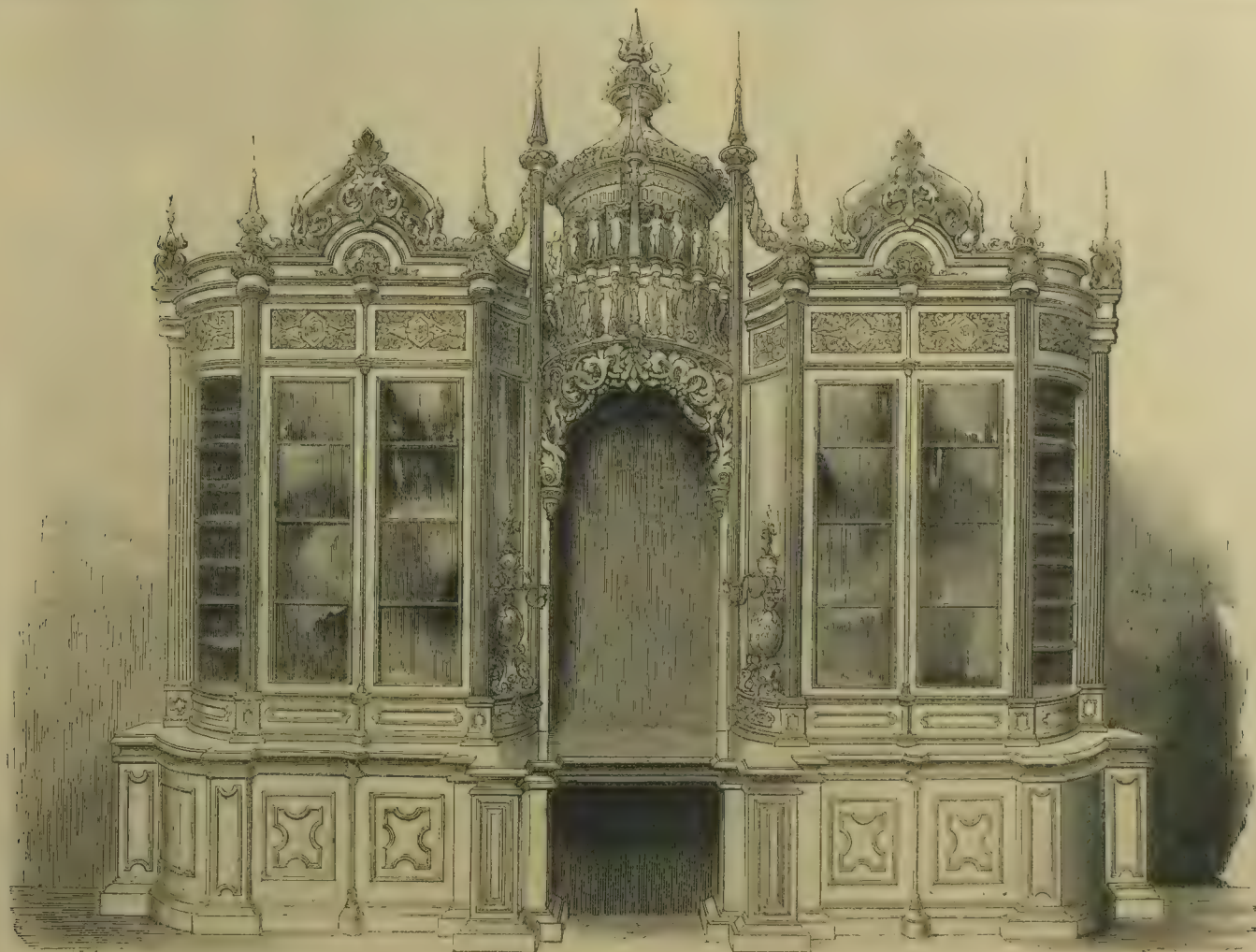
Urling and Co. exhibit a white lace scarf, worked in imitation of Brussels point, the straight lines in the border, and the date 1851 in the centre, embroidered in gold, surrounded by the rose, thistle, and shamrock; the whole is worked upon a fine clear net, for which this house obtained a patent some thirty years since; the body of the scarf is composed of a variety of British plants and flowers, tastefully arranged, and very clearly defined. For similar specimens exhibited at the Society of Arts in 1849, Messrs. Urling and Co. obtained the prize medal, presented by his Royal Highness Prince Albert.

Haywards (Biddle and Co.) have several magnificent productions in Honiton lace, two of which we have engraved. The one represents the arms of her Majesty and Prince Albert, encircled with wreaths of palm and olive branches; around which the rose, thistle, and shamrock are entwined; the whole being enclosed in a border of oak. The other is a very pretty berthe, of a light foliage pattern.

Reckless and Hickling have, also, a very handsome display in this line.

Pelling and Co., of Belfast, exhibit several very elegant examples of embroidery or sewed muslin work, the designs being bold and effective, with a certain amount of originality when seen in the fabric. There is a departure from the ordinary types in vogue for this kind of work, and the designer has taken a freer range than usual. The work is of a very excellent character, and the arrangement of the lines and masses tells well when seen in the fabric.

Amongst the works of furniture, the stately carved bookcase, by Leister, claims special attention for its elaborate and ambitious design and the careful workmanship bestowed upon it.



BOOKCASE OF GERMAN AND HUNGARIAN ASH.—BY MESSRS. LEISTER AND SON



JEWELS.—BY LEVY FRIS, ANTWERP.

IRISH BROOCHES.—BY WATERHOUSE, DUBLIN.—(ILL. "LADA'S GLANCE," AUG. 23.)



IVORY CHESSMEN.—BY STAGHILL, OF WATERLOO.

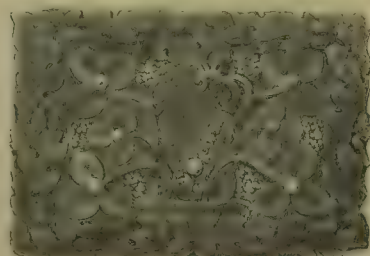


SILVER SOUP TUREEN.—BY O'KOT.

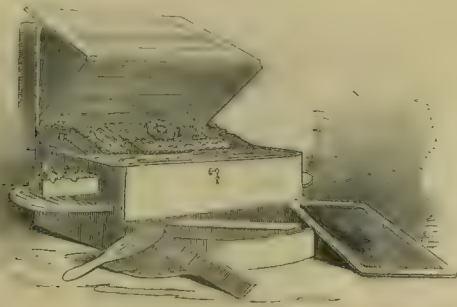
The silver soup tureen, by O'Kot, is extremely elaborate in design, embracing almost every variety of vegetable and animal life: the execution and finish are of the highest class.



KNIFE, FORK, AND SPOON.—BY HAS AND SON.



SNUFF-BOX OF BOX OAK.—BY WATERHOUSE, DUBLIN.



DRESSING-CASE.—BY MEHL.



SILK PATTERN.—BY MR. BOYD, & HALLFIELD.



LACE P'OUNCE.—BY JAMES FORREST AND SONS, DUBLIN.

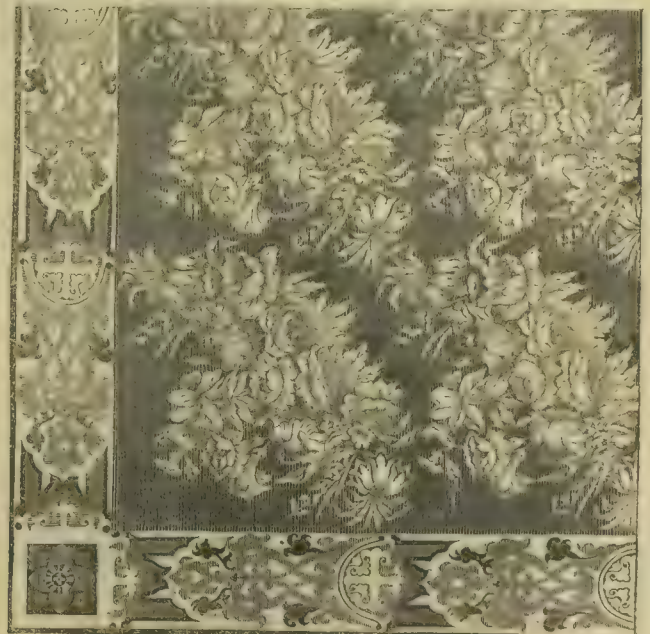


TABLE-COVER IN SILK AND WOOL.—BY W. BROWN, HALIFAX.



LACE LAPPET.—BY JAMES FORREST AND SONS, DUBLIN.



RIBBON PATTERN.—BY CORNELL, LYELL, AND WEBSTER, ST. PAUL'S CHURCHYARD.



LACE LAPPET.—BY JAMES FORREST AND SONS, DUBLIN.



PAPIER MACHE VASES.—BY MESSRS. WALTON AND CO.

These vases, in *papier maché*, by Messrs. Walton and Co., are generally of classic form; the devices varied and elegant, and the colouring extremely rich.



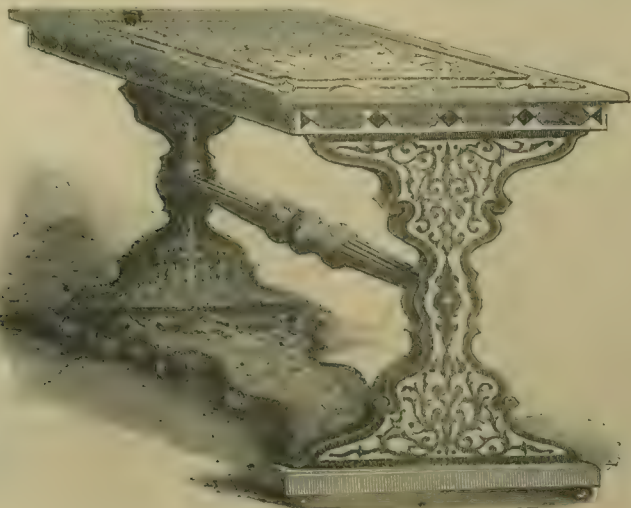
DAMASK.—BY H. C. M'KEA AND CO. HALIFAX.



PATENT CANNABIO MANUFACTURE.—BY ALBANO.

This is another and a very successful sample of the application of the patent Cannabio, which we mentioned in our Supplement of the 23rd of August.

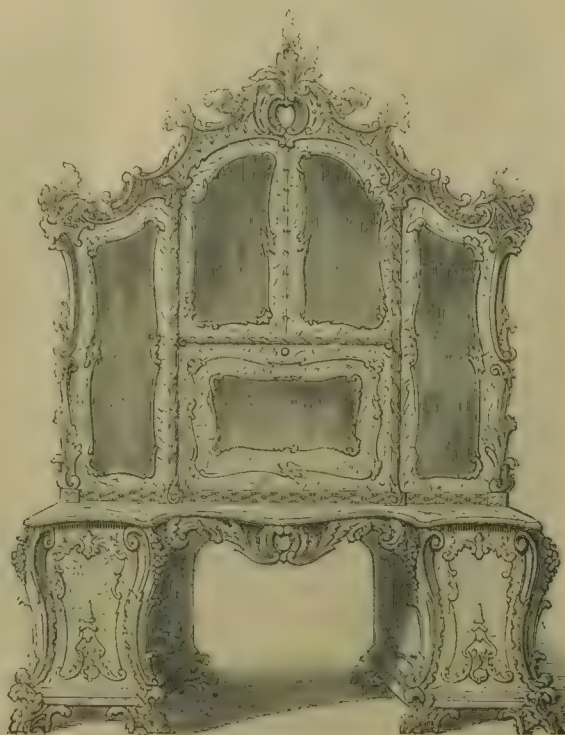
The patent slate tables, &c., by Magnus, claim attention for their substantial quality and rich appearance.



SLATE TABLE.—BY MAGNUS.



ORNAMENT FOR CHING.—BY JACKSON, RATHBONE-PLACE.



MONOCLEID CABINET.—BY SOPWITH, NEWCASTLE.



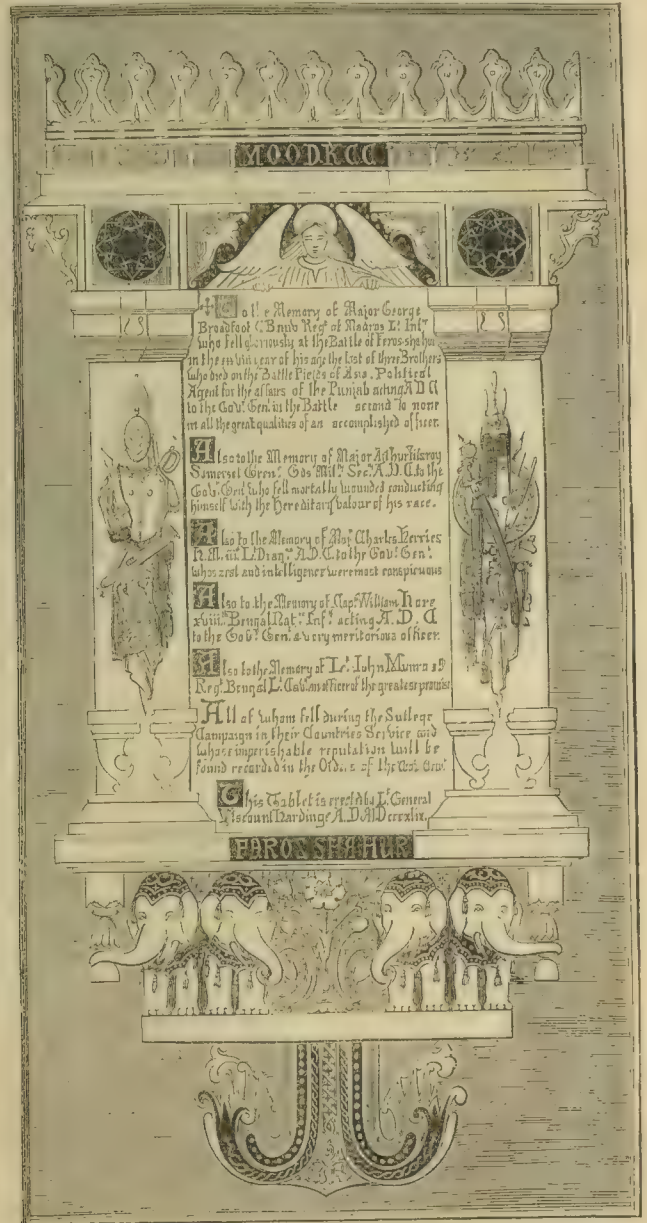
FRAME FOR PRINT.—BY MORANT, DOND-STREET.



PART OF A TABLE-TOP, ENAMELLED SLATE.— BY MAGNUS.



RUSSIAN PARQUETRIE, OR ORNAMENTAL INLAID FLOORING



MONUMENTAL BRASS TO THE MEMORY OF THE OFFICERS WHO FELL IN THE CAMPAIGN ON THE SUTLEJ.—BY MR. J. W. ARCHER.

Sopwith's Monocleid Cabinet (engraved on the preceding page) is a very serviceable and well-made piece of furniture. It is made of black walnut wood—the upper panels being of silvered plate glass, ornamented throughout with carved gilt mouldings. This cabinet contains a great number of drawers and partitions, so arranged as to be especially serviceable for the keeping of various papers sorted, and the whole of them are opened by one turn of the key.



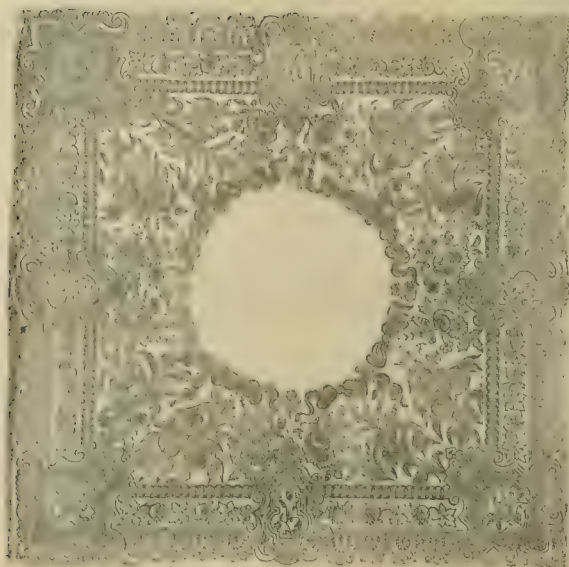
DESIGN FOR HANDKERCHIEF.



PORTION OF LACE SCARF.—BY RICKLESS AND RYLAND.



LACE FLOUNCE.—BY C. F. ROY, BRUSSELS.



BRUSSELS LACE HANDKERCHIEF.—BY E. DEALLIER.



BRUSSELS LACE.—BY A. DUCPETIAUX AND SONS.



QUILT.—BY SUDWORTH.



BRUSSELS LACE.—BY DUHAGON AND CO.



LACE.—BY MESSRS. BIDDLE, OXFORD-STREET.



PAPER PATTERN.—BY MESSRS. TURNER AND SONS.



SHAKESPEARE SHIELD.—BY LEIGHTON (LUKE LIMNER).



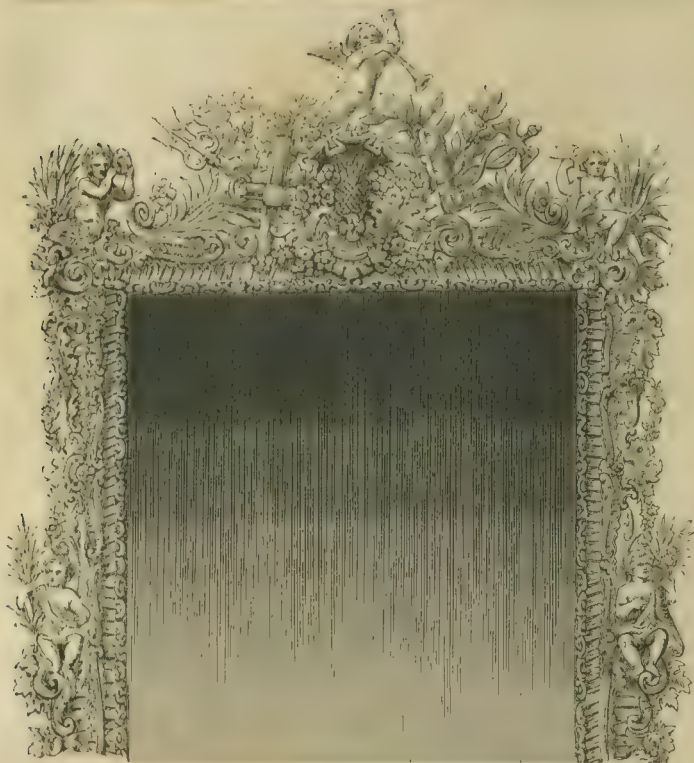
DAGGERS.—BY GUYTON.



'ARCHANGEL MICHAEL AND SATAN.'—BY STEVEN.—(SEE FIRST PAGE.)



MASSACRE OF THE INNOCENTS.—GEERTS.



PORTION OF A LOOKING-GLASS.—BY FOSSENEY.

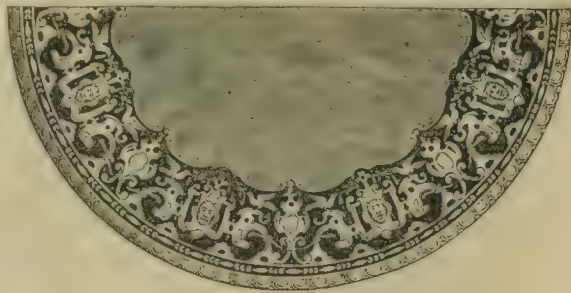


TABLE AND TOP.—BY BANTING, ST. JAMES'S-STREET.

The circular marquetry table, by Banting, must be set down as one of the handsomest and most successful works of the kind in the Exhibition. The design is picturesque and elegant and the workmanship is of the highest class.

The cabinet by Stevens, of Taunton, is of a showy, fanciful character, of no particular

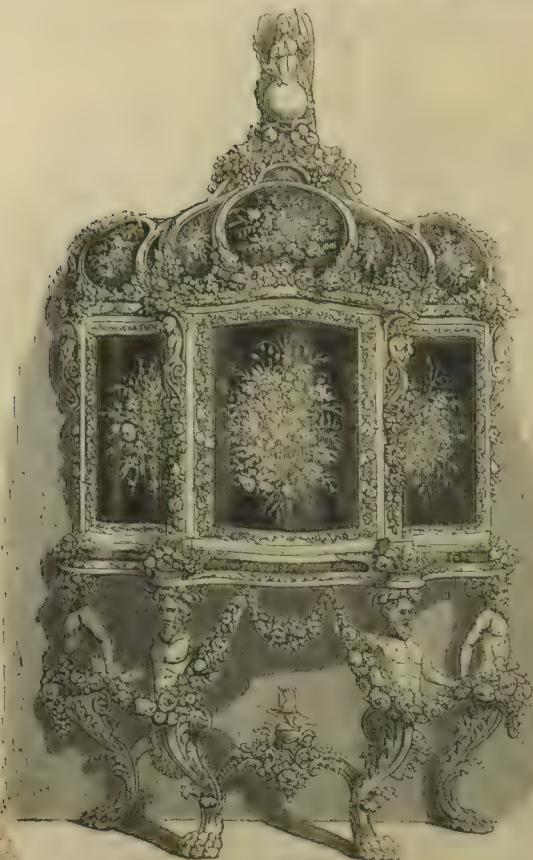


SILVER TEA-SERVICE.—BY DODD.



SILVER TEA-SERVICE.—BY DODD.

style. It has evidently been a "labour of love;" the material, walnut wood, grown near Taunton in Somerset; the panels of raised embroidery, and very pretty they are, by Miss Kingsbury, also, doubtless, of the same parish. After all, there is something pleasing and instructive in these original efforts of provincial handicraft.



CABINET.—BY STEVENS, TAUNTON.



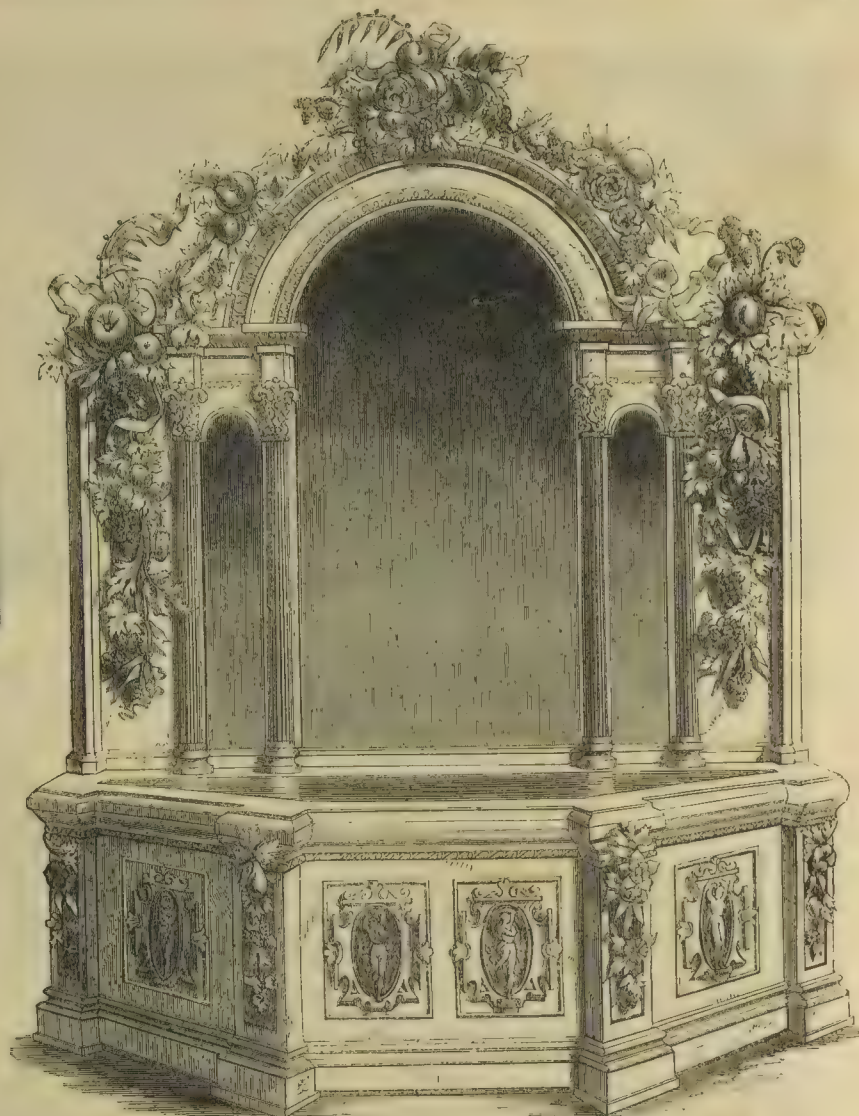
CARVED AND GILT FRAME, WITH ENGRAVED AND CHAMFERED GLASSES.—BY CHAMOUILLET.



LADY'S WORK-TABLE.—BY WHITE AND PARLBY.



CHAIR IN OAK.—BY JEANSELME.



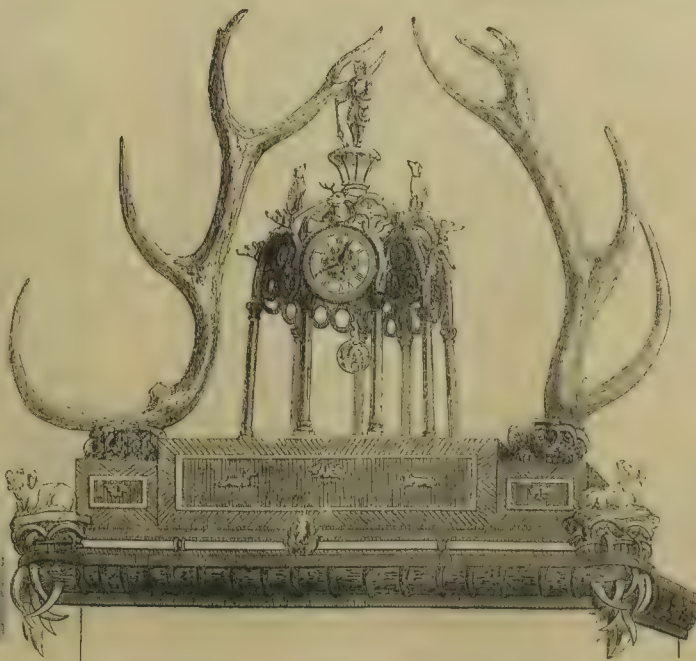
SIDEBOARD.—GUTHRIE COMPANY. (SEE PAGE 315)



BRACELET.—BY LATETIN AND PAVEN.



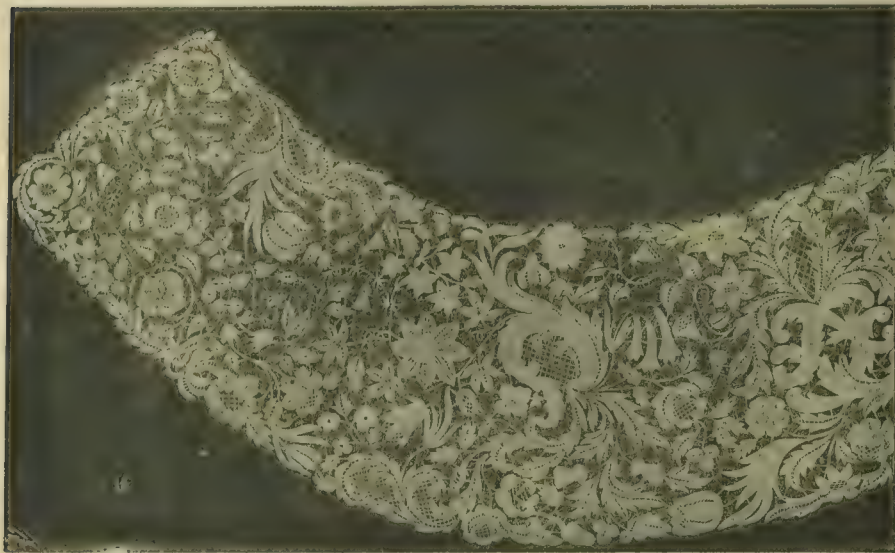
FLOWER-VASE.—BY JOHANN GASSER, VIENNA.



TOP OF A WRITING-BUREAU.—BY H. F. C. RAMPENAU, HAMBURG.



CANDLESTICK IN WOOD AND IVORY.—BY W. D. KEMPILL, M.D.



LACE BORDER.—BY BIDDLE, OXFORD-STREET.—(SEE FIRST PAGE.)



TROPHY ON HORN BUREAU.—BY F. H. C. RAMPENDAH, HAMBURG.

The writing bureau, by Rampendahl, of Hamburg, is of characteristic appearance, the materials being chiefly horn, and the devices having relation to the chase.



SILK PATTERN.—BY SOPER, SPITALFIELDS.



SILK PATTERN.—BY HILL, SPITALFIELDS.

The candlestick by C. French (see next page) is very tasteful and original in design. Bradford, of Clonmel, has a goodly assortment of steel-mounted daggers, in ivory and buck-horn handles; razors with carved handles, which exhibit excellent workmanship. Houldsworth's damasks, the silk patterns by Soper; and the table-cover designed by Mr. Webb, are all highly creditable contributions in textile fabrics.



END OF LACE SCARF.—BY ULLING AND CO.—(SEE FIRST PAGE.)



DAMASK.—BY MESSRS. HOULDSWORTH.



BLACK LACE.—BY VAN LOO, BRUSSELS.

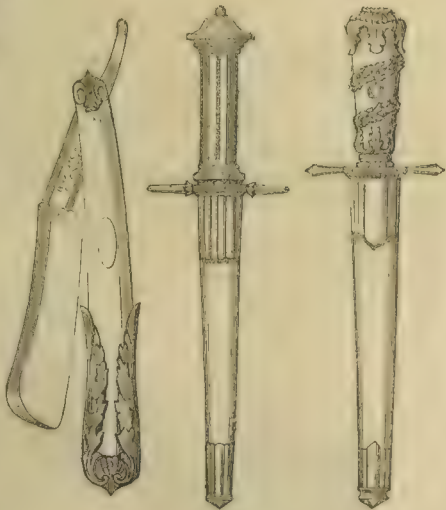


SILK PATTERN.—J. BOYD, SPITALFIELDS.

The glass-frame and side-board (engraved on page 213) exhibited by the Gutta Percha Company, is intended as a specimen of what may be done in their material upon a large scale, as a substitute for wood carving, &c. We must be excused from investigating its beauties as a work of art; as a piece of serviceable furniture, however, we have our misgivings about it, or any thing of the kind composed of this treacherous material. The card affixed to this sideboard announces that it is intended to exhibit the capabilities of this material for ornamental purposes, "particularly the long-sought-for desideratum of a non-fragile pendant." Unfortunately, although this highly-decorated structure in gutta percha is carefully surrounded by a cordon, and has yet experienced no wear and tear—we discover symptoms of dislocation in part of the "pendant" foliage, and something like a "split" in a pear of no ordinary dimensions.



ONE OF A PAIR OF CANDLE-STICKS.—G. FRENCH, ETON.



RAZOR AND DAGGERS.—BY BRADFORD, CLONMEL.



FRONT OF DRESS.—BY FELLING AND CO., BELFAST.—(SEE FIRST PAGE.)



BRUSSELS LACE



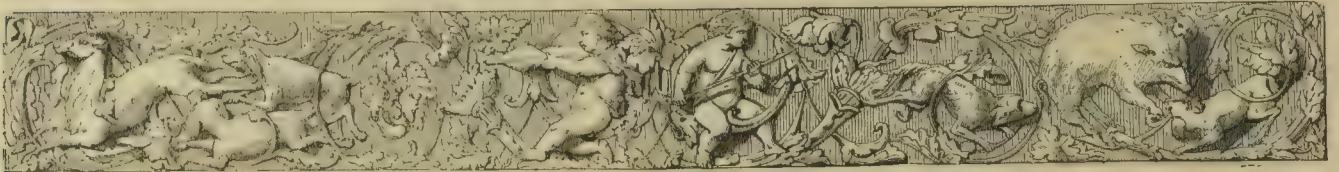
ROSEWOOD WRITING-TABLE.—BY C. B. HANSEN, COPENHAGEN.



WICKER SCREEN.—FROM HAMBURGH.



KEY.—BY FEETHAM.



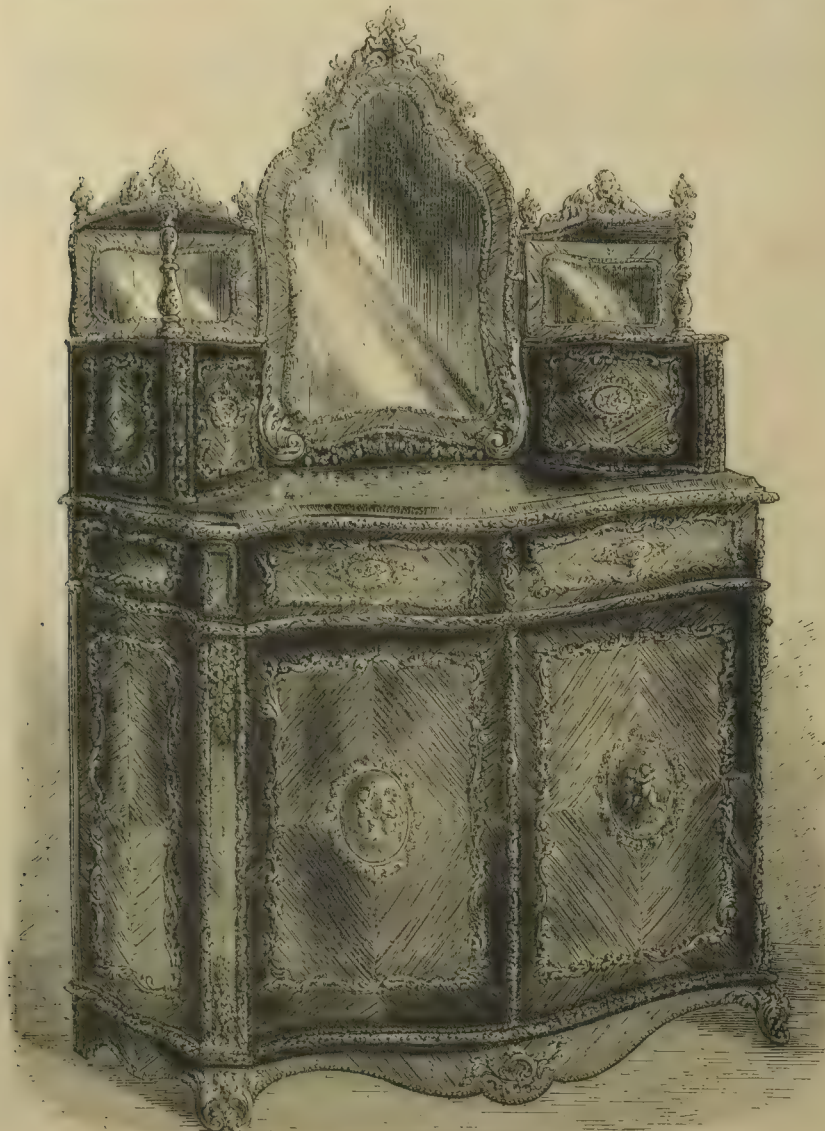
BAS-RELIEF.—BY MM. HARDOUIN.

The rosewood writing-table, by Hansen, of Copenhagen, is a good piece of workmanship of the Louis XV. period. Florange's toilet, in the Louis XVI. style, is very showy, with painted medallions and or moulu ornaments. The wicker screen, from Hamburg, is a light and simple contrivance; the frame, of wicker-work, covered with silk.

The carved ornaments by Hardouin, of Paris, are extremely spirited in design, and executed in a free and masterly style.

Pomsonby's looking-glasses justly hold a high rank, for the excellence of the material and the taste in which they are turned out. The one we engrave is extremely pretty.

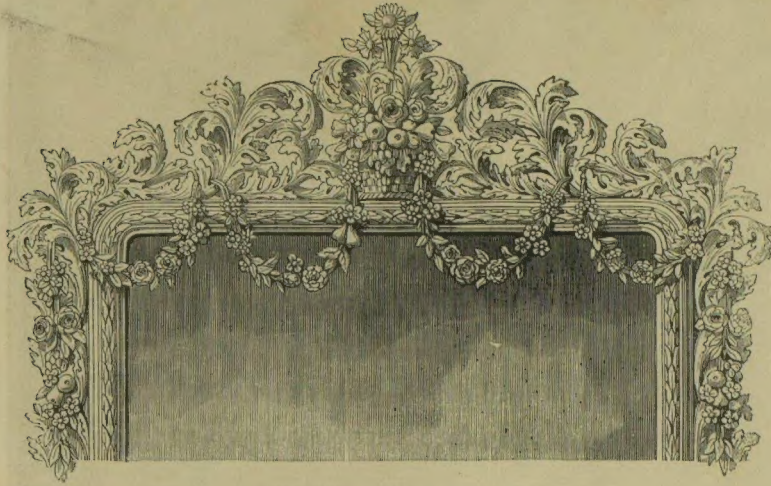
On the opposite page, Morel's silver looking-glass frame claims attention, as one of the most elegant pieces of boudoir furniture imaginable. Bailey's chandelier is of Gothic form, gaudily gilt, and painted in various colours.



TOILET, IN ROSEWOOD AND TULIP-WOOD.—BY FLORANGE, JUN.



LOOKING-GLASS.—BY POMSONBY.



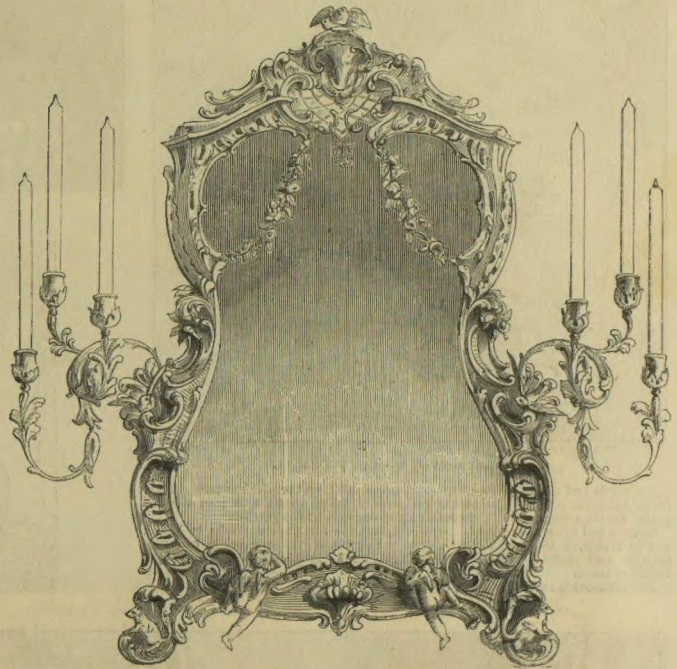
TOP OF LOOKING-GLASS.—BY DIELEFIELD.



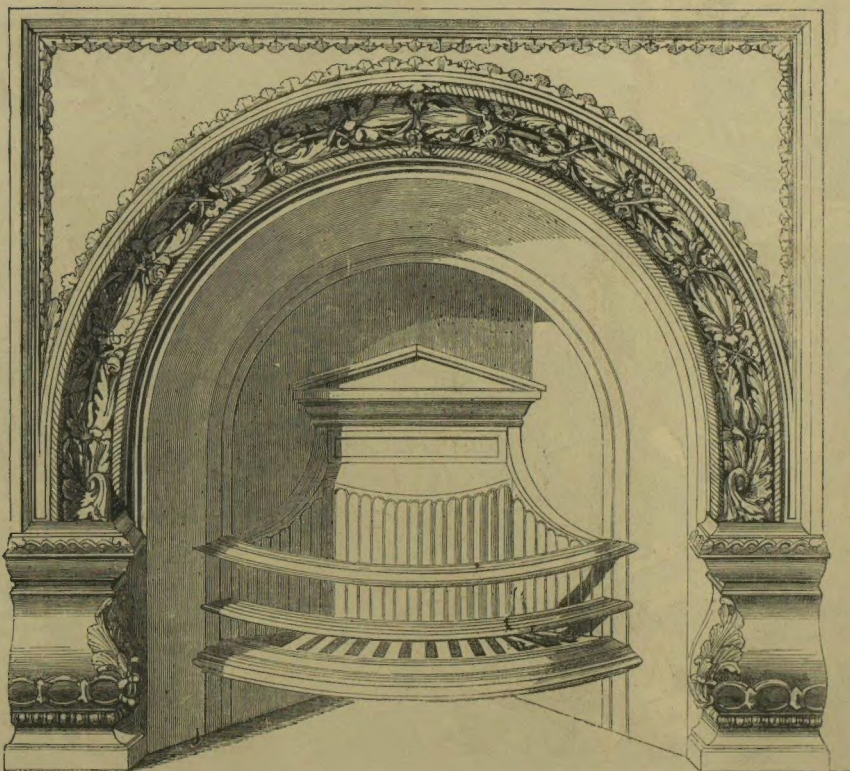
GOLD EMBROIDERY.—BY ABRAHAM.—(SEE NEXT PAGE.)



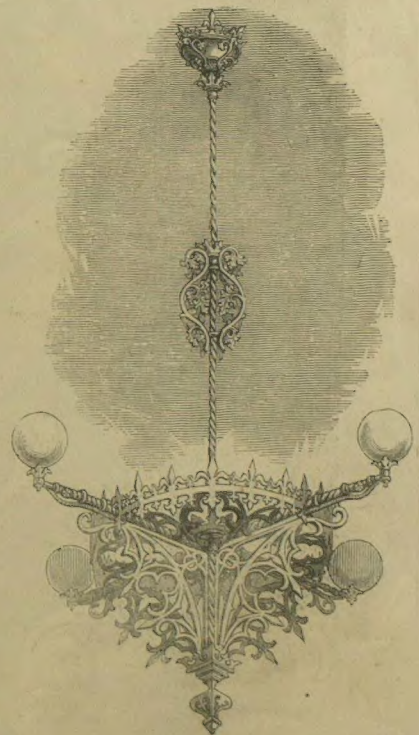
GROUP OF CHINA.—ROYAL CHINA MANUFACTORY, MEISSEN, SAXONY.



SILVER LOOKING-GLASS FRAME.—BY MOREL NEW BURLINGTON-STREET.



STOVE.—BY MESSRS. HOOLE AND CO., SHEFFIELD



CHANDELIER.—BY BAILEY AND SON, GRACECHURCH-STREET.



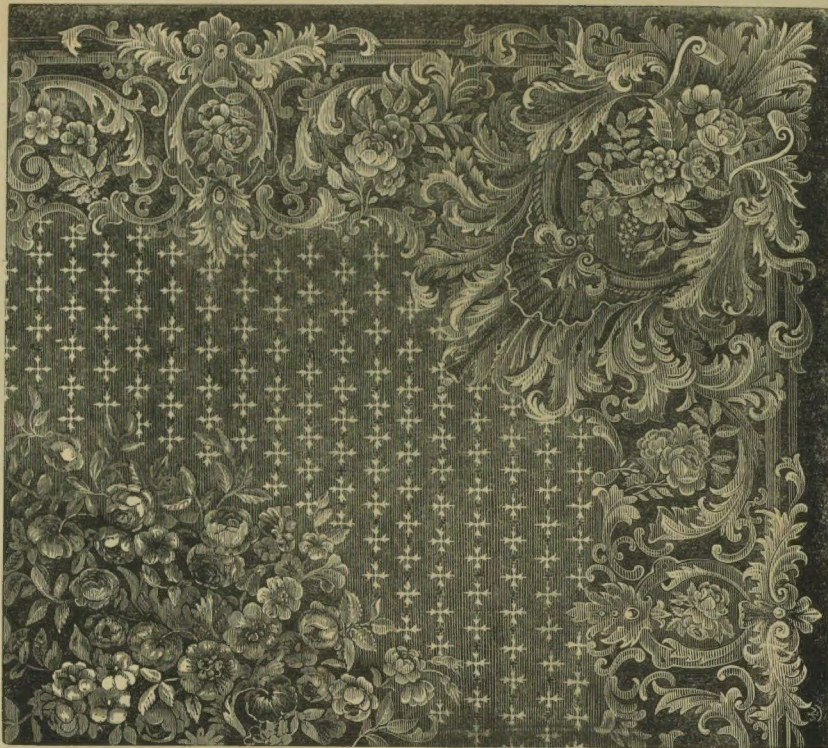
PAPER PATTERN.—BY SCOTT, CUTHBERTSON, AND CO.



DAMASK.—BY J. W. WARD, HALIFAX.

The gloria and corner devices for a communion table, on the previous page, by Rebecca Abraham, is a fine specimen of embroidery, being wrought in gold threads, plates, pearls, spangles, &c., and containing upwards of 82,000 stitches. Bright and Sewell and Cross's carpetings, and the furniture damasks by Ward, and by Brown, of Halifax, we have already mentioned with the praise to which they are well entitled. The specimens of these and other fabrics in these two pages are all of merit.

Jeakes's stove is extremely pretty.



CARPET PATTERN.—BY SEWELL AND CROSS, OLD COMPTON-STREET, SOHO.



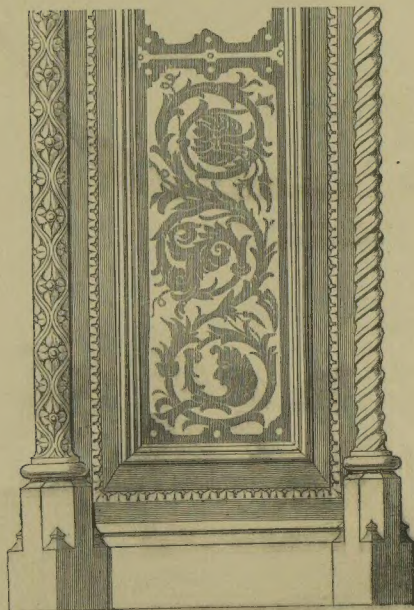
QUILT PATTERN.—BY MYERSCOUGH, OF BOLTON.



PATENT POWER-LOOM PRINTED CARPET.—BY BRIGHT AND CO. MANCHESTER.



PATTERN, SWISS SILK.—CANTON OF ZURICH.



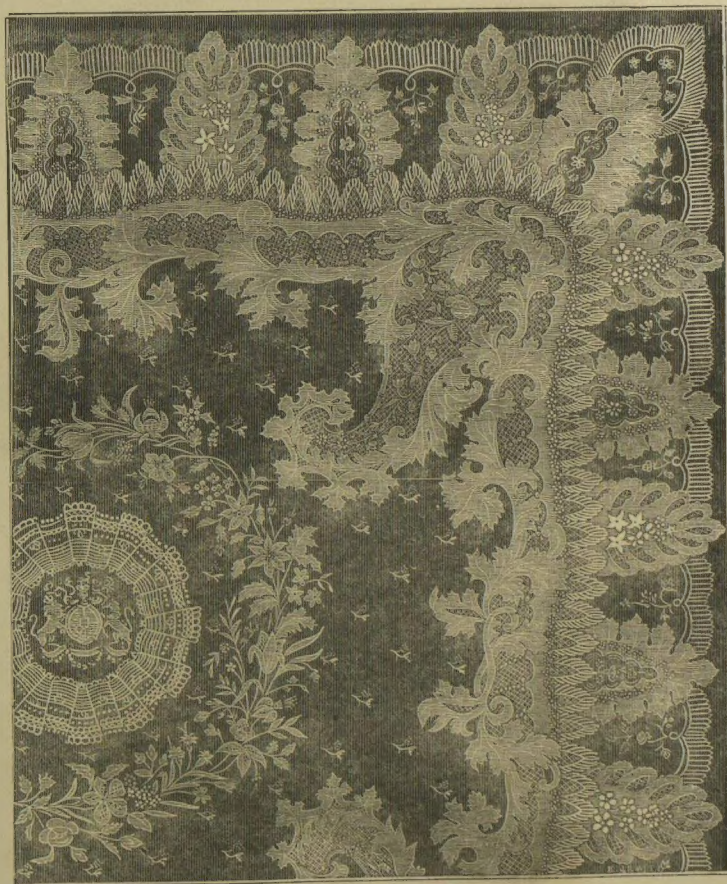
PATTERN ON STOVE.—BY JEAKES, RUSSELL-STREET



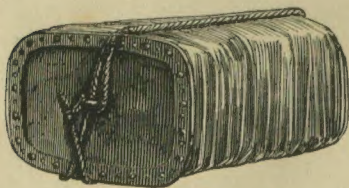
MUSLIN CURTAIN.—BY J. J. BUTTER-BUHLER, APPENZEL, SWITZERLAND.



DAMASK.—BY BROWN, HALIFAX.

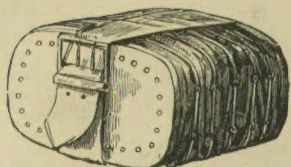
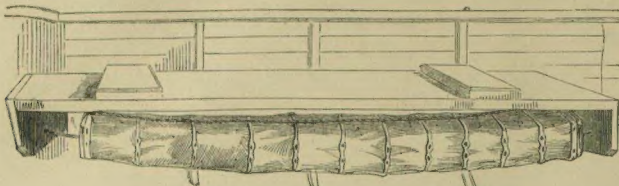


COVERLET.—BY C. BÄHRE WILD, ST. GALL, SWITZERLAND.



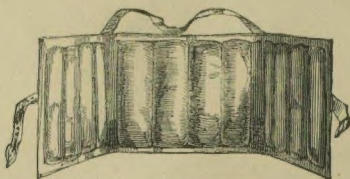
NO. 1.—CANVASS BOAT-FLOAT,

Which, distended under the seat of boat, as shown below, will prevent the possibility of the boat sinking.



NO. 2.—DISC BODY-FLOAT,

Which, being distended round the person, becomes a preventive to sinking in the water, and is applied in an instant.



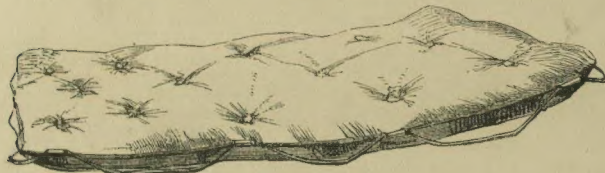
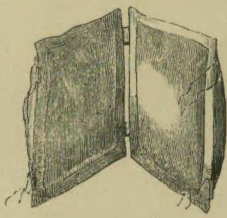
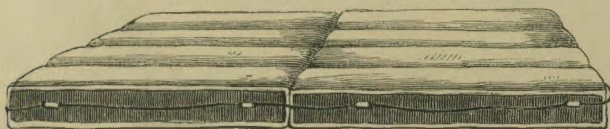
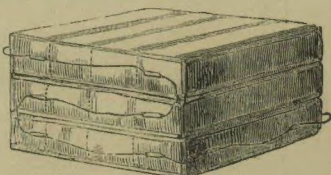
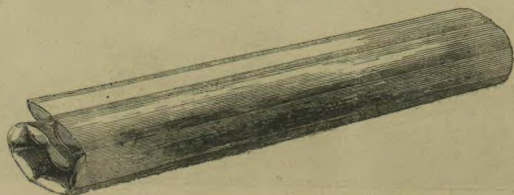
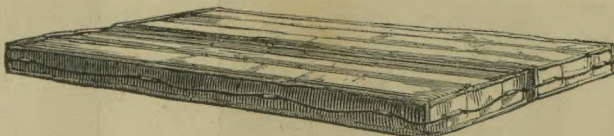
NO. 502.—DECK SEAT CUSHION,

Which becomes a life-preserver by being placed round the body, and may be applied in an instant.



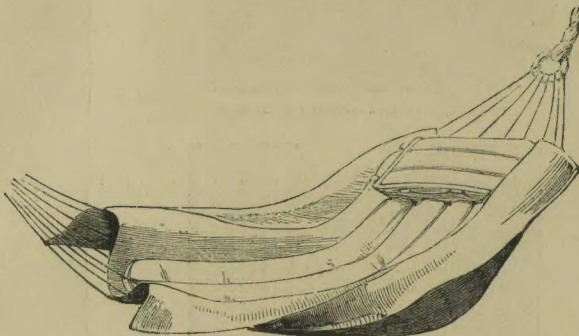
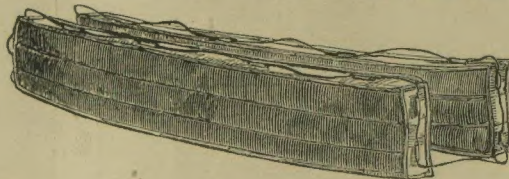
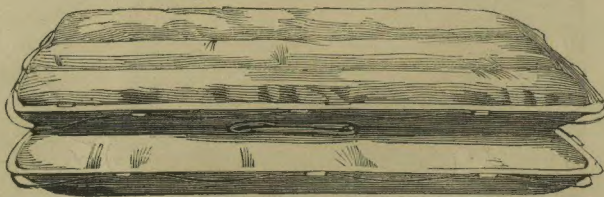
NO. 402.—DOUBLE PILLOW,

Which, when opened and placed round the body, will sustain six persons in the water.

NO. 100.—EMIGRANT'S MATTRESS.
Will sustain six persons in the water.NO. 104.—ORDINARY SHIP MATTRESS.
Will sustain ten or more persons in the water for an indefinite period.NO. 208.—MATTRESS FOLDING IN TWO.
For convenience of carriage. Will sustain ten persons in the water.NO. 212.—MATTRESS FOLDING IN THREE.
For military purposes, and will sustain ten persons in the water.NO. 270.—HAMMOCK-BED, WHICH ROLLS UP.
Will sustain eight persons in the water.

NO. 250.—MATTRESS DIVIDING LONGITUDINALLY.

When opened, as shown in figure below, will sustain ten persons in the water.

N 280.—HAMMOCK AND BED IN ONE.
Will sustain six persons in the water.NO. 300.—BOAT MATTRESS,
As used for preserving life, forming a double mattress for sleeping on, as shown below; and will sustain twenty persons in the water.BOAT MATTRESS
As used to sleep upon.NO. 600.—PORTMANTEAU,
Forming a life-preserver.